JUSTIFICATION OF PROGRAM AND PERFORMANCE

Activity: Park Management
Subactivity: Resource Stewardship

Program Components	1999 Estimate	Uncontr/ Related Changes	Program Changes (+/-)	2000 Budget Request	Change From 1999 (+/-)
A. Natural Resources Applied Research	6,029	20	+524	6,573	+544
B. Natural Resources Management	88,388	1,720	+23,996	114,104	+25,716
C. Everglades Restoration and Research	12,800	0	-3,501	9,299	-3,501
D. Cultural Resources Applied Research	16,087	530	+5,535	22,152	+6,065
E. Cultural Resources Management	66,132	1,666	+5,440	73,238	+7,106
F. Resources Protection	39,383	+667	1,359	41,409	+2,026
Total Requirements $(000)	**228,819**	**4,603**	**+33,353**	**266,775**	**+37,956**

AUTHORIZATION

16 U.S.C. 1 The National Park Service Organic Act
Public Law 105-391 The National Parks Omnibus Management Act of 1998

OVERVIEW

The mission of the National Park Service as defined by the 1916 National Park Service Organic Act is "...to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." As steward of the Nation's natural and cultural heritage, the Park Service is obligated to know what and where the resources are, their current condition, and how to maintain, restore, and protect them, where necessary. Armed with such knowledge, the NPS must take action to restore, preserve, and protect these precious, often irreplaceable resources. In order to carry out this stewardship responsibility, the Service has implemented a program that encompasses a broad range of research, operational, and educational activities conducted to inventory, evaluate, document, preserve, protect, monitor, maintain, and interpret the resources at 378 parks so as to perpetuate their existence, and to allow for their continued appreciation, understanding and enjoyment.

The Resource Stewardship subactivity consists of four major program components: a natural resources stewardship component (which includes natural resources applied research and natural resources management) for the preservation and protection of the natural resources of the National Park System, including natural scenery, wildlife, vegetation, air, water, geologic resources and ecosystems of the National Park System; an Everglades research and restoration component for activities related to the recovery and restoration of the Everglades watershed; a cultural resources stewardship component (which includes cultural resources applied research and cultural resources management) for the preservation and protection of the National Park System's significant cultural resources, including prehistoric and historic archeological sites and structures, ethnographic resources, cultural landscapes, and museum collections; and, a resources protection component that monitors resources to prevent intended or unintended activity damaging to the resources.

Park Management/Resource Stewardship

APPLICABLE NATIONAL PARK SERVICE MISSION GOALS

Ia	Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.
Ib	The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.
IIa	Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.
IIb	Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.
IIIb	Through partnerships with State and local agencies and nonprofit organizations, a nationwide system of parks, open space, rivers, and trails provides educational, recreational, and conservation benefits for the American people.
IIIc	Assisted through Federal funds and programs, the protection of recreational opportunities is achieved through formal mechanisms to ensure continued access for public recreation use.
IVa	The National Park Service uses current management practices, systems, and technologies to accomplish its mission.

A. Natural Resources Applied Research
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $6,029,000

The Natural Resources Applied Research Program addresses specific questions with immediate applications for natural resource management, as well as longer-term research to enhance overall understanding of specific park resources and ecosystems. It also includes evaluation of research needs and coordination with the Biological Resources Division of the U.S. Geological Survey (USGS) and others to obtain research needed by the National Park Service. The conduct and acquisition of research under this activity is primarily related to non-biological research.

Typically, parks do not have specific funds allocated for research, but may fund individual projects in any given year. Research needs, objectives, and priorities are included in the Resource Management Plans developed for each park. Examples of research specific to the needs of individual parks or a group of parks include studies of subsurface hydrology associated with a cave stream, the effects of a jetty on beach sand erosion and deposition, and the effects of dam operations on downstream sandbar deposition and erosion. Park level research is often obtained through universities or other Federal and State agencies.

A major focus of the Servicewide natural resources research program relates to air quality research. Its primary emphasis is on visibility, a discipline not covered by the USGS/Biological Resources Division or sufficiently by other Federal agencies. This research responds to statutory mandates to protect important scenic resources and other air quality related values in parks from being impaired by air pollution, and assists in meeting NPS responsibilities under the Clean Air Act. A significant portion of this research effort is the acquisition of long-term monitoring data on visibility conditions in national parks -- especially Class I parks -- and on the composition of particles in the air that cause visibility impairment. Combined with research on the transport and transformation of air pollutants, these data help identify the regions and sources of the pollutants that cause visibility impairment in parks. The $2.5 million in funding provided in FY 1999 for this activity will continue NPS research on the effects of particulate matter on visibility in national parks. The NPS will also maintain a thirty-six station network of fine particle samplers, an eighteen station network of optical monitors, and, in partnership with the Environmental Protection Agency (EPA), a fourteen station network of ultraviolet-B monitors. The NPS will also coordinate EPA-funded air quality related ecological effects research and monitoring at selected parks, as well as the expansion of EPA's nationwide fine particle sampling network into various NPS Class I areas. This information is critical in assessing NPS progress towards achieving its long-term GPRA goal (Goal Ia3) that addresses air quality throughout the National Park System. Visibility in parks is one of three key performance indicators the NPS uses to assess progress towards this goal.

Park Management/Resource Stewardship

Program	Resources Monitored	Parks in 1999
EPA-funded, joint Air Quality Program; EPA Park Research and Intensive Monitoring of Ecosystems Network (PRIMENet)	Ultraviolet-B Radiation	14 parks
Air Quality Program, as part of the multi-agency Integrated Monitoring of Protected Visual Environments (IMPROVE) Program	Particulate matter (PM10 and PM2.5)	36 parks, 30 as part of IMPROVE Program

In addition to the above, projects planned for FY 1999 include: (1) a field measurement and research study to determine the best field methods for measuring fine particle absorption, a key component to visibility impairment in many parks, (2) the joint United States-Mexico Big Bend Regional Aerosol and Visibility Observational (BRAVO) Study that focuses on apportioning visibility impairment at Big Bend National Park to U.S. and Mexican sources of air pollution, (3) initiation of research efforts to apportion and differentiate the contribution of emissions from wildland fires (from those of industrial sources) to fine particle and visibility impacts in NPS Class I areas, and (4) participation with the Environmental Protection Agency in the Demonstration Intensive Site Project, or DISPro, a research program focusing on establishing a rural, nationwide network of ultraviolet-B radiation monitors and investigating the ecological effects of various airborne environmental stressors at fourteen NPS units. In FY 2000, the NPS will continue most of its FY 1999 activities and will initiate new visibility research in appropriate areas. The NPS will use visibility data collected in NPS Class I areas through FY 1999 to report its progress towards the FY 2000 annual performance goal.

Information and results obtained from this research and from other NPS air quality monitoring programs advance the state of science of air pollution effects on natural ecosystems and visibility, and are used to influence decisions by States, other Federal agencies, and foreign governments to protect park resources from the adverse effects of air pollution. Data are also used to inform and educate regulatory agencies, park visitors, and the public on trends in visibility in national parks and to assist States and regional organizations in formulating appropriate strategies to improve visibility in national parks. With the promulgation of a new fine particulate matter standard (PM2.5) and regional haze regulations, States will rely heavily on NPS monitoring data and research findings in developing their air quality State Implementation Plans required by these regulations. The NPS will continue active participation in the Southern Appalachian Mountains Initiative, the Western Regional Air Partnership, and other similar regional initiatives by providing critical visibility and ecological effects monitoring and research information to develop and implement regional solutions to difficult air pollution issues facing Shenandoah, Great Smoky Mountains, Grand Canyon and other national parks.

Performance Goals

Long-term Goal Ia3	By September 30, 2002, air quality in at least 50% of Class I park areas improves or does not degrade from 1997 baseline conditions.
Annual Goal Ia3	By September 30, 2000, air quality in at least 20% additional Class I air quality parks monitored (total of 30%) improves or does not degrade from 1997 baseline conditions.

Park Management/Resource Stewardship

Air Quality Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Percent of air quality in Class I parks that improves or does not degrade from 1997 conditions.	Baselines established as:		
Percent of NPS Class I areas showing improvement in visibility.	24%	34%	44%
Percent NPS Class I areas showing improvement in ozone levels.	14%	24%	34%
Percent NPS Class I areas showing improvement in acidic precipitation.	10%	20%	30%

FY 2000 BUDGET REQUEST

	2000 Budget Request	Program Changes (+/-)
▪ Natural Resources Applied Research $(000)	6,573	+524

The FY 2000 request for Natural Resources Applied Research is $6.573 million, which represents an increase of $0.544 million over the FY 1999 enacted level. The FY 2000 proposed programmatic increase of $0.524 million to Natural Resources Applied Research activities includes:

	$(000)
▪ Park Base Operations Increase	524
Total	524

Justification for this increase is included at the end of this activity's presentation.

B. Natural Resources Management
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $88,388,000

Most resource management activities are undertaken at the park level. Some functions, particularly physical science activities related to air, water and geologic resources, are carried out by centralized staffs with specialized expertise. Most resource management funding provides salary and support costs for personnel in parks. However, some funding is allocated from Servicewide fund sources for projects. The major source of such funds is the Natural Resource Preservation Program (NRPP). The NRPP provides the only reliable and dedicated source of large NPS project funding (project costs greater than $40,000) available to parks for natural resource management projects. NRPP supports activities in a diversity of areas including inventory, social science, wildlife management and fisheries, forest, grassland, desert vegetation management, and natural resource planning. Approximately ten new projects are initiated each year. In 1998, documented, non-recurring park natural resource project needs totaled nearly $470 million, with large projects making up 50 percent of the total number of projects but 90 percent of the project funding need. Parks and regions have little or no flexible, dedicated funding to meet these needs; instead, the highest individual project priorities are funded.

Resource Management Planning

Park Management/Resource Stewardship

The Resource Management Plan (RMP) defines park objectives concerning both natural and cultural resources, documents the status of the resources, and outlines actions to ensure their well-being; it is the blueprint for comprehensive management of park resources. The National Park Service maintains computer software to annually capture and organize project information from RMPs in a database. All parks are required to maintain a Resource Management Plan. The 1998 database contained over 19,000 project descriptions for both projects and recurring needs received from 274 parks or reporting units. The resource management plans for the remaining parks are in need of updating or are being developed.

Inventory and Monitoring

Sound park management requires comprehensive resource information and monitoring to detect changes that may signal problems. The Servicewide Inventory and Monitoring Program funds a systematic effort to meet a specific set of the natural resource inventory needs at approximately 256 parks with natural resources. This activity supports the achievement of the Service's long-term goal Ib1: Natural Resource Inventories.

To address its general lack of scientific information and monitoring expertise, the Inventory and Monitoring Program funds efforts to acquire eleven basic data sets for each natural resource park. These inventories include: an automated, historical database (bibliography); surveys/lists of vascular plants, vertebrates, threatened and endangered species, and other species of special concern for a particular park; cartographic data, geology and soils maps; water resource inventories; air quality information, including air quality related values; and basic precipitation and meteorological data. A twelfth data set, vegetation maps, is being completed by the U.S. Geological Survey using funding the NPS transferred to that agency in 1994. Collectively, these data sets represent the minimum scientific information needed to manage park natural resources.

In addition to resource inventories, the program also establishes long-term ecological monitoring programs in parks to develop and test cost-effective methods for monitoring park ecosystem status and trends over time. These long-term monitoring programs are used to formulate management strategies to cope with park threats. The USGS/Biological Resources Division funds and oversees initial design of the prototype monitoring programs, which the NPS funds and operates once designed. Lessons and expertise gained through these prototypes will be transferred to other natural resource parks.

With FY 1999 funding at the same level as FY 1998, the inventory and monitoring program will continue efforts to complete inventories for base cartography data, soils mapping, and water quality. In FY 1999, the Service will also continue field-level inventories for vertebrate species of special concern to park managers (e.g. distribution of critical habitat for the endangered Piping Plover at Cape Cod National Seashore) in a small number of parks and conduct baseline geologic mapping assessments for a limited number of parks. With respect to monitoring, in FY 1999 the Service will provide additional operational support to the four prototype monitoring programs undergoing research and development and continue with efforts to assess current monitoring activities by parks and needs not met by current monitoring activities. A description of the twelve data sets follows as well as a table which summarizes the progress to date on this program.

Bibliographies. One critical aspect of making informed management decisions is access to historical information. Agencies that forget the past could be destined to repeat it. In many cases, a substantial amount of relevant, historical information about park resources which could be used to guide park managers already exists but is poorly documented and widely distributed throughout the park and its staff. This inventory activity improves upon that condition by cataloguing park information holdings (publications, reports, maps, etc.) contained in files cabinets, drawers and other locations and incorporating the information into a comprehensive, centralized database which can be readily accessed and used by park managers and decision-makers.

Base Cartography Data. By far, the most efficient and cost-effective way for park managers to utilize complex natural resource information is through spatial display and analysis. For example, by incorporating relatively basic information about vegetation communities and topography into a spatial analysis, managers can locate potential habitats for endangered plant species or predict the likely course of a wild fire. Consequently, all parks urgently need access to and support from a geographic information systems to facilitate decision-making and resource protection. To help

accomplish that goal, this inventory effort obtains four basic cartographic products needed to construct park geographic information system capabilities through a 50:50 cost-share arrangement with the U.S. Geological Survey.

Vegetation and Landcover Maps. Information about vegetation is arguably the most critical piece of information needed for park resource management and protection. Vegetation communities integrate diverse information on air quality, soils, topography, meteorological conditions, and animal interactions to provide managers with a "snapshot" of the status of the natural systems they are managing. Vegetation maps are needed for managers to monitor, detect, and quantify changes in park communities and determine if they are natural or man-caused. Vegetation maps also are vital for wildlife habitat analysis, fire-fuels modeling, site suitability analysis, and evaluation of resources at risk. But in spite of their importance, perhaps fewer than 10 percent of the parks currently have a comprehensive vegetation inventory. Accordingly, this component of the Inventory and Monitoring Program is mapping parks throughout the system following a common classification scheme and consistent scale to facilitate, not only park-specific management, but multi-park and regional comparisons and assessments as well. Aerial photography is being used to map parks outside of Alaska. In Alaskan parks, vegetation and associated landcover features are being mapped from satellite imagery because of their large size.

Species Lists. Information about the species of vertebrates and vascular plants known to occur in parks has utility in a number of park applications. For example, park visitors are often extremely interested in knowing what species are found in the park and likely to be observed at different times of the year. Therefore, the information is essential for park resource interpretation programs, displays, and information packages. Information about threatened and endangered and exotic species in the park is also needed for development of management actions and preservation programs. Finally, the information is vital for effective planning of new field investigations and research in the park. Similar to the bibliography projects described above, this aspect of the inventory program is consolidating all existing species lists, wildlife observation cards and similar information available in the park, as well as species information from other Federal and/or State resource management agencies, and the Nature Conservancy into a comprehensive park species database which is readily accessible to park resource managers.

Biological Inventories. While most parks have at least some information about the species of vertebrates and vascular plants found within their boundaries, the information is often limited and of questionable validity. A survey of 252 natural resource parks published in 1993 revealed that more than 80 percent of those parks lacked reliable information about which species were present, their geographic and ecological distribution, and relative abundance in the park. This component of the Inventory and Monitoring Program is conducting new field inventories with the goal of documenting the occurrence and relative abundance of at least 90 percent of the vertebrates and vascular plants found in parks, giving special attention to species occurring on Federal and/or State threatened and endangered listings. The inventory also provides park managers with general recommendations about how to monitor these resources in the future.

Water Quality. Perhaps few resources in parks are more impacted or influenced by activities outside park boundaries than water resources. Park managers urgently need information about the current status of water quality in the park as well as "benchmarks" against which they can compare future information. In that context, the primary goal of this inventory activity is to provide descriptive water quality information in a format useful to park managers. For each park, a Baseline Water Quality Data Inventory and Analysis Report is being prepared which provides a wide variety of water quality status and trend information. Additional water quality inventories are also being conducted where park coverage is incomplete and gaps need to be filled. In addition to benefiting parks, the information is used to support activities under the Clean Water Act and other national programs.

Park Management/Resource Stewardship

Soils Maps. Detailed information about the physical and chemical properties of soils found in parks is essential for park natural and cultural resource management and protection. Soil surveys provide basic information needed to manage soil sustainability and to protect water quality, wetlands, vegetation communities, and wildlife habitats. Soil surveys also provide managers with the ability to predict the behavior of a soil under alternative uses, its potential erosion hazard, its potential for ground water contamination, its suitability for control of exotic plant species and establishment of native communities, and its potential for preservation of cultural scenes and landscapes. This component of the program is working cooperatively with the Natural Resources Conservation Service to provide park managers with basic information about soils throughout the park as well as more detailed information for potentially high-use areas in the park (e.g. visitor's centers, campgrounds, access roads, etc.).

Geology Maps. Like soils maps, geologic maps form a second fundamental piece of information park mangers need to make effective decisions based, not only on what conditions currently exist in the park, but also what may occur if a given management action or construction project is undertaken. Geologic maps are critical for documenting the nature and location of unique geologic features described in park enabling legislation, ground water supplies, palentological resources, caves and other karst resources, and abandoned mine lands requiring restoration. Furthermore, the predictive capabilities of geologic maps can help park managers better protect visitor safety by identifying the location of potential geologic hazards. To meet these needs, this inventory activity is being conducted in a manner similar to that described for water quality above. Each park is being provided with a report containing a detailed listing and evaluation of geologic information currently available for the park plus a copy of any existing geologic maps in digital format. New mapping projects are undertaken if needed to address specific park issues.

Water Resource Location. This component of the inventory program will focus on locating and classifying important water bodies in parks. Information to be collected will include the location, size, and flow of streams, lakes, and springs. Among other applications, information of this nature is needed to determine watershed boundaries and how land management practices within that watershed might eventually impact park resources. Because of this, several park monitoring programs are based upon a watershed strategy. Some components of this inventory are currently being acquired through the hydrography component of the base cartographic inventory. Once the base cartography inventory has been completed, perhaps in FY 2000, an assessment will be made regarding what additional field investigations will be needed to complete the water resource location inventory.

Air Quality Data. The Clean Air Act amendments require that Federal land managers identify air quality related values (AQRVs) for public lands that may be subjected to emissions from new point sources of air pollution. These AQRVs usually include sensitive plant and animal species, sensitive lakes and soils, and levels of visibility. This list is needed by States and power plant applicants who are required to demonstrate that their additional emissions will not have an "adverse effect" on air quality related values in Class 1 areas. The NPS has 48 Class 1 areas that require this level of protection. All other NPS units are considered to be Class 2 areas. This component will develop AQRV lists for all resource parks. The lists will include: (1) species of flora and fauna potentially sensitive to air pollution and acid deposition (including invertebrate species), (2) sensitive ecosystems and ecosystem processes (e.g. watersheds), (3) sensitive soils and surface waters, (4) scenic vistas.

Inventories for air quality related values will be somewhat dependent upon completion of inventories for vegetation, water resources, and vertebrates and vascular plants. Therefore, the Service does not currently anticipate initiating AQRV inventories until after FY 2000, when additional progress is made in those inventories.

Air Quality Stations. A large number of parks do not currently have permanent air quality monitoring stations located within their boundaries. Therefore, these parks have to rely upon obtaining air quality information from stations located adjacent to but outside of the park's boundaries. This inventory activity will identify available sources of air quality information closest to the park boundary and evaluate its usefulness for park management and resource protection. The inventory will also focus on providing information on location of sources and changes in air pollutants that parks should be concerned about. This inventory activity will be conducted simultaneously with air quality inventories described above.

Park Management/Resource Stewardship

Meteorological Data. The meteorological information to be compiled for parks will include basic data on annual precipitation, relative humidity, prevailing wind speed and direction, and temperature variability. This basic information is needed for a wide variety of applications in park management and resource protection. For example, several of the parameters are needed to predict fire behavior patterns and therefore improve the park's ability to plan and manage both controlled burns and wild fires. The data are also used in numerous vegetation monitoring studies and essential in gaining a better understanding of the current and potential distribution of native, threatened and endangered, and exotic plants species in the park.

With current funding levels, the Service does not anticipate funding any meteorological inventories until after FY 2001, when higher-priority inventories (e.g. base cartography, water quality) have been completed.

Performance Goals

Long-term Goal Ib1	By September 30, 2002 acquire or develop 434 of the 2,287 outstanding data sets identified in 1997 of basic natural resource inventories for all parks.
Annual Goal Ib1	By September 30, 2000, acquire or develop 329 of the 2,287 outstanding data sets identified of basic natural resource inventories for all parks.

Natural Resources Inventory and Monitoring Data Sets	Funded/Completed As of FY 1999	Number of Applicable Parks
Automated Bibliographies	256	256
Base Cartographic Data	170	256
Vegetation (Non Alaska)		
Photos	30	243
Maps	20	243
Alaska Landcover Mapping	3	16
Species Lists	86 (verified)	256
Biological Inventories		
Birds	15	256
Amphibians and Reptiles	15	256
Water Quality		
Databases Summarized	163	256
Field Surveys (Gaps)	25	256
Soils		
National Park Service	20	256
Natural Resources Conservation Service	124	256
Geology		
Baseline Assessment	5	256
Digital Maps	7	256

The NPS Water Resources Program also assists in providing specialized water quality inventories and monitoring, and water resources data management and geographic information system (GIS) applications. It has implemented a partnership with the U.S. Geological Survey's National Water Quality Assessment (NAWQA) Program to include parks in the U.S. Geological Survey's study basins and to jointly fund water quality monitoring by the USGS in parks outside the NAWQA study basins. Over 200 parks lie within the existing or proposed study units, but monitoring in additional parks is unfunded.

A significant portion of the air resources program budget is dedicated to monitoring air pollution levels in parks. This includes the measurement of ozone, other gaseous pollutants, meteorology, and acidic deposition (acid rain) levels in parks to supplement the visibility and fine particle monitoring performed under the applied visibility research program.

Park Management/Resource Stewardship

Air quality monitoring is an important and necessary activity to the NPS because: (1) it is the only way to accurately assess the condition of the air resource in parks, (2) several gaseous pollutants have been shown to be particularly injurious to park vegetation, (3) ozone levels measured in many of our parks exceed injury threshold levels, and in some cases national ambient air quality standards, (4) wet and dry atmospheric deposition of sulfur and nitrogen compounds onto park ecosystems can cause, and are causing, significant effects on lakes, streams, and soils, and (5) historically, neither EPA nor States have monitored air pollution levels in rural areas, particularly in national parks. In order to be cost-effective, the NPS leverages funds extensively through formal partnerships with State, local, and Federal agencies (primarily EPA).

Fiscal year 1999 estimated expenditures for air resource management activities are approximately $3.8 million. Increased funding received in FY 1998 will continue to be used to replace old, unreliable equipment used to monitor gaseous pollutant levels in national parks. In FY 1999, in addition to making these improvements, planned major inventory and monitoring accomplishments for the Air Resources Program include: conduct ozone and other gaseous pollutant monitoring in at least thirty locations and twenty-five parks; establish a uniform methodology with other Federal land managing agencies in evaluating the effects of air pollution emissions from new sources on sensitive air quality related values contained in Class I areas; and develop complete emissions inventories of in-park sources in at least five additional parks. Data collected by these monitoring networks will be used to assess progress towards GPRA long-term goal Ia3. Ozone and levels of sulfate and nitrate in precipitation are two of the three key indicators used to assess progress toward this long-term goal. In FY 1998, the NPS established the baselines and methodologies to be used to measure progress in FY 1999 and subsequent years in achieving this goal. Servicewide natural resource program monitoring activities are summarized in the following table:

Servicewide Monitoring Activities Program and Funding	**Resources Monitored**	**Number of Parks in 1998**
Air Quality Program	Sulfur dioxide, ozone, and meteorological parameters	30 stations in 25 parks
Air Quality Program	Wet deposition (acid rain) as part of the National Atmospheric Deposition Program National Trends Network	23 parks
Air Resources Program	Visibility (atmospheric extinction or scattering)	18 parks
Water Resources Program/United States Geological Survey National Water Quality Assessment	U.S. Geological Survey's National Water Quality Assessment Program (NAWQA)	14 parks in NAWQA study basins
Inventory and Monitoring Program prototype program to develop and test cost-effective methods	Park ecosystem conditions	Operational: Channel Islands National Park Great Smoky Mtns National Park Shenandoah National Park In design (BRD-funded): Denali National Park Great Plains cluster (6 parks) Virgin Islands cluster (3 units) Cape Cod National Seashore

Much of the data being developed through both inventory and monitoring efforts are digital, geographically referenced data that can be utilized in a geographic information system (GIS) and allow manipulation and analysis of several data sets together. There are currently over 100 parks with operational geographic information systems (including GIS operators), and about 250 Park Service sites operate desktop geographic information systems on an as-needed or part-time basis. Staffing of park-based programs is funded at the park level and supports a wide variety of resource management and other applications. In addition, GIS technical support centers and dedicated GIS project funding assists parks in implementing geographic information systems, especially parks with limited capability.

Park Management/Resource Stewardship

Mitigation/Restoration Activities

Mitigation is defined as activities to preserve or restore park natural resources. Damages may result from uses prior to park establishment; illegal or unauthorized visitor activities; improperly conducted allowable park uses; invasions of exotic plant species; changes in habitats outside park boundaries, and pollution. Most preservation and restoration activities are undertaken at the park level. Resource management funding provides salary and support costs for park staff and provides limited funds for actual project costs. Often expert technical assistance is provided through a Servicewide program. Some project funding is also allocated from Servicewide fund sources such as Natural Resources Preservation Program, the Abandoned Mineral Lands Program, and water resources funding.

While visitors enjoy natural resources, often these same resources need to be protected from inappropriate visitor use, as well as from non-visitor uses (e.g., mining and grazing) that may be permitted in a park. Parks must determine appropriate levels and types of permitted activities such as fishing, river use, backcountry use, and hunting. Parks must evaluate, plan, and design the appropriate type and level of activities that can be carried out without unacceptable harm to resources. This often results in a management or operations plan developed using an environmental assessment to evaluate alternatives and needed mitigation. The plans are based on data developed through research and monitoring projects.

Operation plans are also required for private mineral development now occurring in over 25 parks, and environmental assessments must be prepared for each operation to determine appropriate controls and mitigation measures. In FY 1998, the NPS evaluated 40 proposed plans in ten parks, and three parks prepared comprehensive management plans and environmental statements addressing development of private oil and gas rights. Management of mining in the California desert parks is a particularly significant workload. In FY 1998, the Congress provided increases directed at mining in Mojave National Preserve, one of the three California desert parks, including an increase of $580,000 for the Servicewide Geologic Resources Program and an increase of $318,000 for Mojave. The funds were used in FY 1998 for mineral exams and fieldwork to assess existing operations, validity contracts, and new mineral examiners and other mining specialists. Contracts were executed to commence exams on 25 claims. The NPS reduced the number of unpatented mining claims in the desert parks from over 4,000 in 1997 to about 1,200 at the end of FY 1998. In FY 1999, the $580,000 increase provided in FY 1998 was legislatively directed for use solely in Mojave National Preserve. The table below reflects evaluation of mineral developments in the California desert and elsewhere.

FY 1998 Technical Evaluation of Mineral Development Proposals	Proposed Operations	Number of Parks Affected
Non-Federal Oil and Gas Exploration, Production and Site Reclamation	34	7
Mining Claims Access, Mineral Extraction and Site Reclamation	6	3

In addition to representing an allowable park use that requires significant planning and management, mineral operations -- in this case abandoned sites -- represent a substantial portion of the disturbed lands requiring restoration. Other examples of areas and resources requiring restoration include: abandoned roads; backcountry campsites and other discrete areas impacted by visitor and other uses; habitats such as prairies and wetlands altered by changes in water flow; areas invaded by exotic plant species; and populations of threatened and endangered and other plants and animals that have been extirpated from an area. Congress recently authorized the Park Service under Public Law 101-337 and Public Law 104-333 to seek compensation for resources damaged by third parties and retain recovered funds for use in restoration or replacement of injured resources.

One of the important types of habitat and species restoration is that affecting threatened and endangered species. More than 160 parks provide important habitat for endangered species' restoration because of the parks' protected status. There are at least 168 species listed under the Endangered Species Act, which are on NPS lands and have recovery plans. The recovery plans cover 86 plants, 29 birds, 20 mammals, 14 fish, ten (10) reptiles, eight (8) invertebrates, and one (1) amphibian. Within these recovery plans are 2,039 tasks that have been assigned to the National Park Service. These tasks run the gamut of conservation activities from the reintroduction of the wolf into Yellowstone National Park

to the control of exotics in Hawaiian parks, and from public education to law enforcement patrols for endangered species collectors. The importance of endangered species activities is reflected in the Service's long-term goal Ia2: Threatened and Endangered Species.

Restoration is also required as a result of disturbances from land development and invasive species. Such disturbances directly affect other natural resources and can result in severe and persistent changes to habitat conditions and ecosystem functions that disrupt natural processes, and otherwise destroy natural systems. Abandoned mines and mineral extraction sites represent more than ten percent of the disturbed lands in national parks, affecting about 150 park units and posing safety as well as resource management concerns. The National Park System contains nearly 3,000 abandoned mineral sites with over 11,000 hazardous openings, at least thirty miles of streams with degraded water quality, and more than 33,000 acres of impaired lands due to previous mineral extraction. These figures do not include the extensive number of abandoned sites added to the System by the 1994 California desert parks expansion.

The NPS estimates that to address its priority needs related to abandoned mine lands over the next 10 to 20 years would require a total of $20 million to $40 million, although long-term total cleanup costs could be as high as $165 million. In FY 1998, for the first time, the NPS received project funding of $500,000 for restoration and safety work at high priority sites and to fund participation in various State watershed remediation partnerships. Through a competitive proposal process, the NPS Abandoned Mineral Lands Program provided funds to 21 abandoned mine land projects in 17 parks for use in site cleanup, hazardous shaft closures, and land restoration and mitigation efforts. FY 1999 funds will be distributed to park projects in a similar manner.

FY 1998 Abandoned Mineral Lands Reclamation Accomplishments-Type Project	Number Funded/Completed	Number of Parks Affected
Permanent Closure of Hazardous Openings	32	9
Reclamation /Surface Cleanup – Sites	6	5
Inventory/Preparation for Additional Work	9	8

Funding provided in FY 1999 for the abandoned mineral lands program will be used for park projects that include: (1) removal of mine spoil and reservoirs to restore Glorieta Creek floodplain at Pecos National Historical Park; (2) stabilization, debris removal, and revegetation of mined areas of Eureka Creek watershed and Red Top Mine in Denali National Park; (3) restoration of Golden Eagle Mine site at Joshua Tree National Park by plugging dangerous openings, removing debris, and revegetating with native plants; (4) construction of mine gates at the Monte Cristo complex in Buffalo National River; (5) reclamation of the Hazel Grove iron mine at Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park; (6) backfill, recontour and rehabilitation of Lex/Ponderosa Mine and Johnson Mine sites at Great Basin National Park; and (7) mine surveys and remediation of safety hazards in Bremmer District and Kennicott Mine site in Wrangell-St. Elias National Park Preserve.

In FY 2000, abandoned mineral land funds will be distributed to similar types of restoration projects submitted by parks and selected through a competitive process, which will be conducted in 1999.

Exotic species infestations require both control efforts and restoration to prevent further infestations and restore natural vegetation. At least 194 parks have recognized that exotics are a serious problem. However, less than ten percent of exotic species-related projects identified in resource management plans are funded. Examples of the effects of exotics are: they invade and replace thousands of acres of native vegetation, rendering the land uninhabitable for wildlife; they despoil or eliminate critical water resources; and they interbreed with native species. Control of these nonnative species, when available, is often necessary to restore and maintain healthy functioning ecosystems. For example, feral animals such as pigs cause significant damage to native plants in at least eight parks, and leafy spurge and knapweed have infested most parks in the Intermountain and Pacific Northwest areas. Various efforts including integrated pest management are undertaken to control these populations and to protect sensitive resources from destruction by exotic

species. However, for many exotic species control technologies are not available or their rate of spread exceeds our management capabilities.

Disturbed land restoration and exotic species control and restoration discussed above represent two performance goals for NPS.

Performance Goals

Long-term Goal Ia1	By September 30, 2002, 5% of targeted disturbed park lands, as of 1997, are restored, and 5% of priority targeted disturbances are contained.
Annual Goal Ia1	By September 30, 2000, 2.4% of targeted disturbed park lands, as of 1997, are restored, and 2.9% of priority targeted disturbances are contained.

The following table presents cumulative NPS acreage for disturbed land restoration projects initiated or planned by parks across the System. These figures are based on Servicewide data reported by the individual parks in the Performance Management Data System (PMDS) or on the NPS Strategic Plan/GPRA targets.

Disturbed Lands/Exotic Species Performance Information	FY 1998 Targeted	FY 1999 Estimate	FY 2000 Estimate
Acres of lands restored that was impacted by former uses	12,150	18,400	25,000
Acres of invasive plant and animal species contained	63,250	117,000	156,000

Both to achieve restoration and to preserve resources, water resources often need to be secured and protected. In addition, water resources meet visitor needs. These require technical and scientific evidence, water rights records, participation in administrative, judicial, or other State or Federal water rights proceedings, and verification of water rights and uses. In FY 1998, a number of water rights actions are underway which are expected to be completed in FY 1999.

Park Management/Resource Stewardship

FY 1999 Water Rights Projected Accomplishments Type Action (based on FY 1998 Workload)	Number of Actions	Number of Parks Affected
Water Rights Applications Evaluated for Impacts to NPS Resources Protected Using State Laws	210	13
Water Rights Applications Protested Using State Laws	56	6
Settled or Protected and Withdrawn	7	4
Hearings Conducted	0	0
Adjudications in Progress (NPS Participating)	38	48

Other threats to ecosystem functioning stem from activities outside parks over which the Park Service does not have control. Nonetheless, park managers and natural resources personnel seek to identify potential offsite problems for parks and to work with communities to avoid or reduce impacts, including thorough review of planning proposals, permits, and environmental documents.

For example, in addition to in-park mineral operations, the National Park Service resource managers participate in planning and permitting for adjacent mineral development that may affect park resources. In FY 1998, the NPS evaluated Federal oil and gas leasing and development adjacent to one park, and mining operations proposed near ten parks. An example of the benefits of active participation is the changes in the proposed "Red Hills Power Project," a combined surface coal mine and coal-fired power plant near the border of Natchez Trace Parkway. During 1998, after reviewing the draft environmental impact statement, park and regional officials, along with experts from the NPS Water Resources and Geologic Resources Programs, worked with the State of Mississippi and the project sponsors to gain permanent changes to the proposed operation to assure its development with minimal impact to the parkway.

FY 1998 Evaluation of Mineral Development Proposed Adjacent to Park Lands	Number of Proposals	Number of Parks Affected
Federal Oil and Gas Well Drilling and Production	1	1
Surface and Underground Mining and Reclamation	10	10

Under the Oil Pollution Act of 1990 and the National Contingency Plan, the NPS develops plans and strategies to protect park resources following the release of oil or hazardous chemicals, often from sources outside the park. The Park Service also conducts damage assessments and restoration plans for natural resources injured by these incidents as part of the Secretary's natural resource trust responsibilities under Federal law.

Another significant external threat to natural resources is the construction of new major sources of air pollution near parks, particularly those designated as "Class I." The NPS will continue to review permit applications for new sources and to assist States in the permitting process in reducing the levels of air pollution from these sources thereby mitigating any potential adverse effects on park resources.

FY 2000 BUDGET REQUEST

	2000 Budget Request	Program Changes (+/-)
▪ Natural Resources Management $(000)	114,104	+23,996

The FY 2000 request for Natural Resources Management is $114.104 million, which represents an increase of $25.716 million over the FY 1999 enacted level. The FY 2000 proposed programmatic increase of $23.996 million to Natural Resources Management activities includes:

	$(000)
▪ Presidio Transition	-440
▪ Park Base Operations Increase	4,680
▪ Inventory and Monitoring	8,000
▪ Natural Resources Preservation Program	3,500
▪ Native and Exotic Species Management	4,000
▪ Geologic Expertise for Resource Protection	735
▪ California Desert Restoration	2,021
▪ Resource Protection Act Implementation	1,500
Total	23,996

Justifications for these increases are included at the end of this activity's presentation.

C. Everglades Restoration and Research
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $12,800,000

This activity represents the continuation of the Interior Department's 5-year Critical Ecosystem Studies Initiative (CESI). This is the Department's contribution in support of science and research programs focused on resolving water quality, water quantity, wetlands, and wildlife issues in the South Florida ecosystem. This program supports a science partnership between thirty Federal, State, local, and Tribal governments to develop the knowledge base needed for restoration of the South Florida ecosystem. The 1998 CESI program added additional studies to (1) plan and implement water quality improvement technologies, (2) complete regional scale landscape ecology projects, (3) develop control strategies for exotic species, and (4) begin the integration of ecosystem restoration efforts with adjacent land use impacts on the man-made environment of South Florida. The 1999 program will add four new topical areas that include: (1) the completion of an integrated interagency science plan and peer review workshops, (2) expanded landscape scale projects to examine patterns, processes, and regional scale modeling, (3) begin assessments of the influence of contaminants and biogeochemical processes, and (4) the development of improved integration of scientific databases and geo-spatial analyses.

The Critical Ecosystem Science Initiative for Everglades restoration as presented in the table and described below summarizes the FY 1999 program and the program at the FY 2000 reduced level.

Park Management/Resource Stewardship

Everglades Restoration – Critical Ecosystem Science Initiative	FY 1999	FY 2000
Ecosystem Restoration Planning	$300,000	$220,000
Ecosystem Science Planning and Peer Review	150,000	185,000
Ecological Modeling-Refinement and Applications	1,500,000	685,000
Selective High Density Topographic Surveys	1,400,000	545,000
Ecological Processes and Indicator Species	2,000,000	1,125,000
Landscape Patterns, Processes, and Modeling	1,000,000	920,000
Linkage of Macro- and Micro-Scale Hydrologic Models with Communities	1,250,000	685,000
Coastal and Estuary Systems	0	1,155,000
Contaminants and Biogeochemical Processes in Inland and Coastal Systems	400,000	920,000
Water Quality Improvement Technology	400,000	230,000
Water Quality Enhancement and Monitoring on Tribal Lands	1,000,000	460,000
Invasive Species Control Strategy	150,000	230,000
Science Information Synthesis and Dissemination	450,000	640,000
Florida Bay and the Greater Coastal Ecosystems Complex	2,000,000	0
Subtotal	$12,000,000	$8,000,000
South Florida Ecosystem Restoration Task Force, Office of Executive Director	800,000	1,299,000
Total	$12,800,000	$9,299,000

Ecosystem Restoration Planning ($220,000) – FY 2000 is the final year of a planning initiative to develop a single integrated interagency plan for South Florida ecosystem restoration. This plan is designed to integrate our ongoing authorized projects (Modified Water Deliveries, the Everglades Construction Project, the C-111 Project, etc.) with our longer-term projects (the Central and Southern Florida Restudy, Multi-Species Recovery Planning, and the Comprehensive Wetland Conservation Strategy). This process involves the integration of engineering designs, economic and societal impact studies, and environmental assessments for numerous Federal, State, Tribal, and local programs that will require extensive public outreach and participation.

Ecosystem Science Planning and Peer Review ($185,000) - In FY 2000 previous interagency science planning documents will be updated to create a new blue print for South Florida ecosystem science, entitled *Science Planning and Implementation – 2000 and Beyond.* The Interagency Science Coordination Team will continue reviewing and coordinating scientific investigations and conducting independent peer reviews, workshops and symposiums on South Florida restoration-related topics. Numerous scientific workshops were held in 1997 and 1998, with additional workshops scheduled for 1999 and 2000. Some of the upcoming workshops include: Endangered Species Protection, such as the Cape Sable Seaside Sparrow, Hydrologic and Hydrodynamic Modeling, Landscape and Ecological Processes, Sustainable Agriculture and Ecosystem Restoration, and an interagency Science Forum and Exposition. All workshops generally include local scientists and resource managers working in the South Florida area, and an external peer review panel. The external panels produce reports which provide guidance to the science coordination team and agency staff in evaluating the quality of their science, and identifying critical monitoring and research needs to support decision-making by local managers and policy makers. This interagency planning and implementation process helps to design the needed long-term monitoring and research studies and the development of predictive models that guide us on the selection of alternative management plans, proposed implementation actions, and the specific engineering design for numerous ecosystem restoration initiatives.

Ecological Modeling – Expansion, Refinement and Applications ($685,000) - During 1998 and 1999, ecological models, particularly the Across Trophic Level Systems Simulation (ATLSS) models, serve as important predictive tools used by resource managers in evaluating various restoration alternatives. These models have been used extensively for regional scale evaluations for the Central and Southern Florida Restudy, as well as more site-specific applications of endangered and keystone species for projects such as the Modified Water Deliveries and Experimental Water Delivery projects for Everglades National Park. During 2000, existing ecological models will continue to be refined and new models will be designed and adapted to the unique South Florida environment. These evolving predictive tools will expand our ability to link the results of hydrologic and water quality modeling with predictions of fish, wildlife, and vegetative changes at the individual, community, and landscape level. Existing models range from endangered species

such as the wood stork and Cape Sable seaside sparrow, to freshwater fish and the white-tailed deer. Ecological models that are coming online in 1999 and 2000 include: additional species-specific models for the snail kite, the American alligator and crocodile, and the Florida Panther, as well as individual and community-based models for freshwater fish and macro-invertebrates, four additional species of wading birds, and several small mammals. In 2000 and beyond, the ecological modeling program is expanding to integrate mangrove, coastal, and nearshore communities (including the Florida Keys), and the coral reef ecosystems.

Selective High Density Topographic Surveys ($545,000) – High density topographic surveys provide ground surface elevation information essential to predicting surface water depths and durations, which are key to assessing restoration alternatives. The landscape scale patterns in ground surface elevations are also a strong indicator of the underlying soils and associated vegetation community distributions, which assist in calibrating hydrological and ecological models. In 1997 and 1998, topographic surveys were focused in the Taylor Slough and C-111 basins of Everglades National Park, to support the development of hydrologic models linking these watersheds with hydrodynamic modeling in Florida Bay. Surveys in 1999 have expanded northward into the southern Water Conservation Areas (WCAs 3A and 3B) and the South Dade agricultural area. In 2000, topographic surveys will expand westward into the southern Big Cypress watershed and the downstream areas of Shark River Slough, to provide information for hydrologic modeling initiatives, linking with site-specific studies in the coastal and mangrove areas in these basins.

Ecological Processes and Indicator Species ($1,125,000) - The analysis of long-term monitoring data for selected faunal species and plant communities has shown that many of these species/communities make suitable ecological indicators of environmental alterations, because of their specific roles in the ecosystem or their sensitivity to anthropogenic changes. Similarly, ecological process studies have continued to focus on the abundance, distribution, and diversity patterns of key plants and animals and their environmental forcing factors, that act across the Everglades landscape. Site-specific research plots, developed in 1997 and 1998, are being used to establish permanent reference stations to track natural versus man-induced variability. The measurement variables are generally selected based on their sensitivity to changes in water depths, inundation durations, and water quality, which are the key hydrologic characteristics that are the focus of South Florida ecosystem restoration. With the additional data collected in the next two years, a well defined set of science-based performance measures will be available, as management tools during the period of restoration implementation. In addition to measuring restoration success, much of the information on key indicator species and ecological processes will also be used in the development of ecological simulation models as well as providing information for use in the Multi-Species Recovery Planning process.

Landscape Patterns, Processes, and Modeling ($920,000) – This is a new program which began in late 1998, with the goal of examining the ever changing Greater Everglades ecosystem from a regional or landscape scale. At this scale the South Florida ecosystem can be viewed as a complex mosaic of upland, wetland, coastal, and marine communities and faunal populations, which respond to natural and man-made perturbations (e.g., fire, flood, drought, hurricanes, wetland drainage, water quality degradation, land-use changes, etc.) affecting this dynamic landscape. Funding during 1998 was used to complete an ongoing GIS-based vegetative mapping program in the Big Cypress National Preserve, Biscayne National Park, and Everglades National Park. The remote sensing and vegetative classification methods were done in close coordination with State-funded mapping programs in the upstream water conservation areas, to create a seamless vegetation map for the overall ecosystem. Additional 1998 and 1999 funds were provided to the EPA to complete a 5-year re-sampling of plant and animal communities throughout southern Florida, linked to the distribution of water quality parameters (principally nutrients and mercury). This new landscape scale research and modeling program is integral to the synthesis of ecological, vegetation, trophic level, hydrologic and biogeochemical information into the decision-making process. The Interior Department's National Wetlands Inventory program provides an excellent tool for documenting and assessing historical changes and the predicted affects of restoration proposals within the *status and trends* function of the national wetlands inventory program. The purpose of this effort is to link landscape-scale community and population dynamics with management practices, to give resource managers the tools to evaluate management options and their implications at the broader regional/landscape scale.

Linkage of Macro- and Micro-Scale Hydrologic Models with Communities ($685,000) - During 1997 and 1998, the mangrove hydrologic modeling program focused primarily on regional-scale processes in the eastern and southern Everglades region with limited information being gathered for western regions. In 1999 and 2000 funds are being used to create a new program that will refocus the U.S. Geological Survey mangrove hydrologic modeling program to collect new information on the smaller-scale hydrologic linkages of freshwater and coastal ecosystems of the western

Park Management/Resource Stewardship

Everglades and Big Cypress National Preserve. In 1998, some initial research was initiated linking macro and micro scale hydrologic/vegetation models in the western mangrove communities. Additional research is necessary to link site-specific plant community responses to both existing and restored hydrologic conditions. This continuing research involves the collaboration of biological and physical scientists not only in the development of micro scale linkage between hydrology and the biota, but also in the development of linkages between local hydrologic changes and response of individual mangrove plants. This is one of the biggest gaps in information necessary for refining detailed design and construction plans in the southwestern basins, needed for the implementation phases of the Modified Water Deliveries and Central and Southern Florida Restudy projects. Significantly more research is necessary to complete modeling for western systems.

Coastal and Estuary Systems (1,155,000) – Funding during 1997 and 1998 was used to initiate, and support scientific studies that were identified through an independent peer review process, as essential for the restoration of Florida Bay. These studies included experimental work on seagrass diseases, effects of seagrass die-off and declining water quality on fish productivity, trends in water quality patterns, and the relationship between salinity and water circulation in Florida Bay. The program was expanded in 1999 to include the greater coastal and estuary ecosystems of south Florida. New projects in 1999 and 2000 include the synthesis and integration of the results from nearly 100 projects supported by nine government agencies, including the effects of upstream runoff on nearshore nutrient levels, development of models of seagrass growth and die-off, and models of shrimp and fish population dynamics. These predictive models will be linked to physical and hydrological models to evaluate ecosystem responses to restoration alternatives under varying climatic conditions. The critical needs in these other estuarine ecosystems will similarly be identified through the panel review process used in Florida Bay, and support will be provided to build the scientific basis for performance measures useful for evaluating restoration actions.

Contaminants and Biogeochemical Processes in Inland and Coastal Systems ($920,000) - Limited funding for this program was provided in FY 1999, which was used to sponsor a peer review workshop on exposure, toxicological effects, and risk management. The goal of the workshop was to identify, discuss, and review toxic substance research and other outstanding contaminants issues in South Florida, with specific reference to sustainable restoration of the Greater Everglades and coastal ecosystems. The external panel report provided a prioritized list of needed critical projects (such as screening-level risk assessments of ecological toxicity, quantifying the potential for bioaccumulation of contaminants, and investigations of the use, fate, and degradation of pesticides in areas integral to natural system restoration). In 2000, the science conservation team will develop an implementation plan to put the panel's research recommendations into action. This research is essential since it is anticipated that as restoration projects come online there will be a significant increase in urban and agricultural runoff flowing into the Greater Everglades ecosystem. This research is necessary to assess the influence of contaminants (specifically; mercury, pesticides, endocrine disruptors, and nutrients) on flora and fauna in both the inland freshwater ecosystems and adjacent estuarine/coastal ecosystems.

Water Quality Improvement Technology ($230,000) – In 1997 and 1998, work began to address three critical research needs (the analysis of water quality and hydrologic data in agricultural and urban basins that discharge into the Everglades, the development of best management practices, particularly in the C-111 basin, and the development of a new marsh water quality treatment technology using algal based polishing cells). Detailed reports have been prepared summarizing water quality aspects of the proposed East-Coast Buffer Strip, and analyses of water quality and hydrologic data from the C-111 Basin. Funding during 1999 and 2000 will continue the analyses in these basins and expand into new areas, and begin a contract with the University of Florida, Tropical Research and Education Center to fund a best management practices study on environmentally friendly plant production for use in or adjacent to Everglades National Park. In addition, National Park Service matching funds will be provided to the U.S. Army Corps of Engineers to fund an evaluation of periphyton (algal) based stormwater treatment areas for the removal of nutrients from the waters of the C-111 Canal.

Water Quality on Tribal Lands ($460,000) – Funds during 1997 through 1999 were set aside to support water quality monitoring and research studies on lands managed by the Miccosukee and Seminole Tribes of Florida. The Seminole Tribe installed automatic water quality samplers and began collecting water quality and nutrient data in late 1997. They have also completed the initial design for farm-scale wetland treatment systems, and submitted several summary reports over the last two years, describing the total phosphorus load calculations for sites on their reservation lands.

Park Management/Resource Stewardship

The Miccosukee Tribe has not yet submitted a scope of work or funding request for their work. Funds during 2000 will be used to continue this ongoing work.

Invasive Species Control Strategy ($230,000) - The spread of invasive exotic plants and animals represents one of the greatest threats to successful South Florida ecosystem restoration. In 1997 and 1998, work on a comprehensive exotic plant control strategy was initiated. In 1999, the program was expanded to include exotic animals such as the highly invasive Asian swamp eel, which was identified in very near proximity to the Everglades. Research was initiated by the USGS to assess the threat that this invasive species poses. Funding in 2000 will expand this research on invasive plant and animal species. State, Tribal, Federal and local governmental programs are addressing new facets to the invasive control program through biological, chemical or mechanical control mechanisms. The funding in 2000 will focus on the development of a single interagency strategy to integrate these programs.

Science Information Synthesis and Dissemination ($640,000) – In 1999, this new program was established to develop a standardized data storage and retrieval system for all of the projects funded under the CESI program. First year funding will go to the compilation of this information and the establishment of protocols for all monitoring and research information. Funding during 2000 will continue the development of this data management program, expand the program to include non-CESI projects, and begin the establishment of a electronically linked *or centralized database to improve the efficiency of data retrievals.

This activity also provides $800,000 to support operations of the South Florida Ecosystem Restoration Task Force which is responsible for coordinating and integrating the activities of the participating Federal, State, and Tribal agencies. The Water Resources Development Act of 1996 directs the task force and working group to implement procedures to facilitate public participation in the advisory process; to maintain records and make the proceedings of meetings available for public inspection; and to submit biennial reports to Congress, summarizing the activities of the task force, the policies, strategies, projects, and priorities developed or implemented, and the progress made toward the restoration. Some of the funds are utilized by the DOI Office of the Solicitor.

DOI Performance Goals - Everglades Restoration

Long-term DOI Goal	By September 30, 2002, all known Federally endangered and threatened species will have improved population status and 10 percent of those species will be "down listed." The expansion of invasive exotic plants such as Melaleuca, Brazilian Pepper and Old World Fern will be contained with strategies in place to reduce the number of infested acres to below 1996 levels.
Annual DOI Goal	By September 30, 2000, at least one species in South Florida will be eligible for reclassification from endangered to threatened.
Annual DOI Goal	By September 30, 2000, the number of Melaleuca infested public land areas will be reduced to about 330,000 acres. The number of acres of public lands infested with Brazilian Pepper and Old World Fern will be reduced consistent with task force strategy.

FY 2000 BUDGET REQUEST

	2000 Budget Request	Program Changes (+/-)
▪ Everglades Restoration and Research $(000)	9,299	-3,501

Park Management/Resource Stewardship

The FY 2000 request for Everglades Restoration and Research is $9.299 million, which represents a decrease of $3.501 million from the FY 1999 enacted level. The FY 2000 proposed programmatic decrease of $3.501 million to Everglades Restoration and Research activities includes:

	$(000)
▪ Everglades Critical Ecosystem Studies Initiative	-4,000
▪ South Florida Ecosystem Restoration Task Force	499
Total	-3,501

Justifications for these increases are included at the end of this activity's presentation.

D. Cultural Resources Applied Research
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $16,087,000

The National Park Service conducts a program of basic and applied research in accord with current scholarly standards, to support planning, management, and interpretation of park cultural resources. The principal goals of the mission-oriented research are:

- to identify, evaluate, document, and determine the significance of cultural resources;
- to acquire a systematic and fully adequate park information base;
- to develop appropriate methods and technologies to inventory, document, monitor, preserve, protect, and maintain cultural resources;
- to ensure appropriate treatment and interpretation of cultural resources;
- to develop appropriate approaches to conserving park resources; and
- to work with partners in the academic and preservation communities to ensure and acquire the knowledge base necessary to meet NPS stewardship and education goals.

Resources often are threatened by the lack of basic resource information needed to meet these goals. The lack of up-to-date, detailed, systematic data about resources and their problems continues to impair the proper management of resources.

Cultural resources research responsibilities include: (1) completing historic resource studies, park administrative histories and other historical studies, (2) providing for National Register of Historic Places documentation, (3) preparing historic structure reports to guide park management in treatment and use decisions, (4) preparing cultural landscape reports to determine appropriate treatment and use, (5) providing basic archeological identification, evaluation, and documentation of resources in all parks and providing National Register listing, as appropriate, (6) completing collection management plans, collection storage plans, and collection condition surveys, (7) completing documentation (cataloging) for all museum objects, (8) completing basic ethnographic surveys and field studies in parks, and (9) completing ethnographic overviews and assessments to identify relationships with Native Americans and other ethnic groups associated with park resources.

Inventory and Evaluation Systems

Servicewide cultural resource inventory systems manage and maintain the data obtained through research. These systems provide the basic information necessary for park facility planning and development proposals, including information necessary to comply with archeological, environmental, and historic preservation mandates. Further, basic

information is provided which is used to determine appropriate and cost-effective strategies for managing, preserving, maintaining and interpreting cultural resources.

Current inventory systems are Cultural Resources Management Bibliography, List of Classified Structures, Cultural Sites Inventory, National Catalog of Museum Objects, and Cultural Landscapes Inventory. A number of the applied cultural resource activities are related to building and improving these inventory systems.

Archeological Resources

The NPS gives priority to its national program, established in FY 1992, to identify, evaluate, and document archeological resources located in units of the National Park System. These resources range from Cliff Palace, a visually spectacular cliff dwelling ancestral pueblo site at Mesa Verde National Park in Colorado; to the Fort Hill site, a national historic landmark prehistoric settlement at Cape Cod National Seashore that includes the remains of a Nauset Indian Village visited by Samuel Champlain in 1604 and also contains archeological deposits dating back thousands of years; to historic period archeological deposits at Klondike Gold Rush National Historical Park that contain information about Americans' fascination with the last geographical American frontier. The program supports systematic research to locate, evaluate, and document archeological resources; to nominate archeological properties to the National Register of Historic Places; and to recommend strategies for their interpretation, management, preservation, and protection which contributes to NPS achievement of long-term goal Ib2 (Cultural Resource Baselines). The 1997 baseline inventory and evaluation of each category of cultural resources is increased by a minimum 5 percent by 2002. The automated Archeological Sites Management Information System used to calculate the baseline data in FY 1997 was estimated to have a data entry backlog totaling 60 percent of the known sites. In FY 1998, this backlog was reduced by 30 percent through a combination of inventory and backlog reassessment. A major focus in FY 1999 will be to reduce further the data entry backlog and to enter all new sites into ASMIS. Documentation of current condition and threats to *in situ* archeological resources in park areas is used to determine where and when further actions are needed to help maintain sites in good condition. These actions assist in meeting long-term goal Ia8: Fifty percent of the recorded archeological sites are in good condition by 2002. This effort includes recording of standard information about each site systematically and electronically so that park, regional, and national management databases can be utilized for budget and management control. The program is funded through the Cultural Resources Preservation Program and other programs that affect archeological resources (e.g., planning, construction, operations, cyclic maintenance, and fire management). In FY 1999, Servicewide funding for this program is $2.3 million.

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resources is increased by a minimum of 5%. [From baseline of 25,327]
Annual Goal Ib2	By September 30, 2000, the number of sites recorded in the Archeological Sites Information Management System is increased by 2%. [From baseline of 25,327]

Archeological Resources Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Recorded sites with electronic records	43,100	43,500	44,000
Percent increase in the number of sites recorded in the 1997 Archeological Sites Management Information System	1%	1%	1%

Archeological Resources Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Estimated archeological sites	1,554,000	1,554,000	1,554,000

Park Management/Resource Stewardship

Recorded archeological sites	61,000	61,600	62,200
Archeological sites evaluated	30,000	31,000	32,000
Archeological sites listed on the National Register of Historic Places	13,480	13,580	13,680
Acres of park land with some level of archeological inventory	9,544,198	9,606,000	9,668,000

Ethnographic Resources

Ethnography focuses on the identification and documentation of present-day people with long-term associations to existing or proposed parks and on the cultural and natural resources they invest with traditional cultural meaning. These resources include mountaintops, baptismal sites, urban neighborhoods, fisheries and terrestrial subsistence areas and other places and landscapes that define a group's ethnic history and identity. Data on these resources and the people who value them is required for culturally appropriate and effective resource management and planning, and for establishing mutually beneficial alliances with the associated communities. The national strategy for inventorying ethnographic resources, designed in FY 1998, will be used to identify, evaluate, and document ethnographic resources. Data entered in FY 1999 will be used to set the target and meet the annual goals for FY 1999 and FY 2000.

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resources is increased by a minimum of 5%.
Annual Goal Ib2	By September 30, 2000, following finalization of the baseline in FY 2000, set target that increases the total number of items on the Ethnographic Resources Inventory by 50 items.

Ethnographic Resources Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of ethnographic resource electronic records	0	50	100

Park Management/Resource Stewardship

Historical Research

A primary manner in which the National Park Service conducts historical research is through the completion of park historic resource studies, administrative histories and special history studies. This historical research, based upon primary and other sources, evaluated through a peer review process built on cooperative relationships with partners in the academic and preservation communities, is the basis of all history research in the National Park Service and is the primary performance indicator for the History Program. Historians apply analytical skills and their knowledge of American history to help further the National Park Service mission to understand, preserve, protect, and interpret important cultural resources under and outside of the Service's jurisdiction.

Specialized tasks provided by National Park Service historians include one or more of the following:

- conducting research on historical topics and properties;
- conducting field surveys on historic properties;
- preparing National Register documentation for park resources;
- evaluating historical studies and documentation;
- developing interpretive programs based on current historical scholarship; and
- providing advice, guidance, and technical assistance on historical topics and preservation issues.

The historic resource study is the primary research document that provides historical information for the identification, evaluation, nomination to the National Register of Historic Places, management, and interpretation of historic properties. Historic resource studies provide essential knowledge to further the park visitor's educational experience and ensure that the Service's management of the historic resources under its care reflects the rich diversity found in them.

The results of this historical research serve the American people through the creation of studies that allow for the informed management of resources while contributing to the public understanding of history. Historic resources studies completed or begun during FY1998 include those for Abraham Lincoln Birthplace National Historic Site, Klondike Gold Rush National Historical Park, Brown v. Board of Education National Historic Site, Storer College in Harpers Ferry, West Virginia, Lyndon B. Johnson National Historical Park, the Civil War defenses of Washington, and the Bering Land Bridge National Preserve. In addition, nominations to the National Register of Historic Places were completed for sites relating to the Atlanta Civil War campaign, the Spanish-American War in Puerto Rico and various properties within Cuyahoga Valley National Recreation Area. While this list is not inclusive, it provides an indication of the variety of research needed to maintain the knowledge base necessary to manage and interpret the complex array of properties within the National Park System.

In FY 1999 and FY 2000, $860,000 will be allocated to fund an estimated eighteen historic resource studies from the historic resource study priority list. Goals for the FY 2000 program are that 45 percent of park planning initiatives is based on adequate cultural resources information and 30 percent of all current history research is available and widely distributed through the most efficient media.

Historical Research Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of historic resource studies completed	18	18	18

Cultural Landscapes

Park Management/Resource Stewardship

Cultural landscapes range from large rural tracts covering several thousand acres, such as the Gettysburg battlefield and the Blue Ridge Parkway, to designed landscapes of less than two acres, such as Frederick Law Olmsted's home and studio. Cultural landscapes provide the physical environment associated with historical events and reveal aspects of our country's origins and development through their form, features, and use. They also illustrate the relationships among park cultural and natural resources. The NPS defines a cultural landscape as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values." There are four general kinds of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. As of the end of FY 1998, a total of 1,593 landscapes have been identified.

Through applied research, information necessary for park management decisions concerning treatment and use of cultural landscapes is obtained and provided to park managers. Research defines the characteristics, features, values, and associations that make a landscape historically significant. This information is collected, analyzed, and organized through a variety of means, discussed below.

• *Historic Resource Study* - The Historic Resource Study documents the thematic context sufficient to evaluate historical, aesthetic, technical, or scientific associations of landscapes and contains enough information about the developmental history or evolution of each landscape to evaluate its integrity, and enough information about the contributing environment of each landscape to enable National Register documentation to be prepared. Historic resource studies are usually prepared by support office or cultural resource center staff or under contract.

• *Cultural Landscapes Inventory* - The Cultural Landscapes Inventory (CLI) documents the location, historical development, and current management of cultural landscapes. This information is entered in the computerized Cultural Landscapes Automated Inventory Management System (CLAIMS), an analytical tool at all organizational levels to assess budgetary, scheduling, and program development needs. Landscapes included in the CLI are either eligible for the National Register or are to be treated as cultural resources by law, policy, or decisions reached through the park planning process. This data entry is usually completed by the support office, cultural resource center, or under contract. In FY 1999 and FY 2000, approximately $1.0 million per year will be allocated to continue inventory work and document management information concerning significance, threats, impacts, condition, use, and approved treatments. In FY 1998, CLAIMS was implemented with emphasis on entering previously gathered data, and the *Cultural Landscapes Inventory Professional Procedures Guide,* which outlines a standardized approach to inventory of cultural landscapes within the National Park System, was printed and distributed to the field.

• *Cultural Landscape Report* - The Cultural Landscape Report documents research concerning condition, causes of deterioration, necessary treatments, and treatment alternatives, as well as the development history or evolution of a landscape. It is the primary guide for park management decisions concerning landscape use and treatment. In FY 1998, *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques,* which guides this research, was printed and distributed to the field. Cultural landscape reports are usually prepared by support office, cultural resource center, or under contract.

The results of the above applied research efforts contribute to meeting the NPS mission goal Ib--contributes to knowledge about cultural resources and associated values; management decisions about resources are based on adequate scholarly and scientific information. The annual goal for FY 2000 to increase the number of cultural landscapes on the cultural landscapes inventory contributes to achievement of long-term goal Ib2 in that landscapes are identified so that park managers can consider them in their decision-making.

Park Management/Resource Stewardship

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resource is increased by a minimum of 5%.
Annual Goal Ib2	By September 30, 2000, add 50 cultural landscapes to the FY 1998 base of 134 landscapes (37.3%) on the Cultural Landscapes Inventory.

Cultural Landscapes Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of cultural landscapes inventoried on the Cultural Landscapes Inventory.	134	159	184

Historic and Prehistoric Structures

Park historic structures include Independence Hall, Fort Sumter, log cabins at Denali National Park and Preserve, the Statue of Liberty, and the Ship Balclutha at San Francisco Maritime National Historical Park, as well as prehistoric structures such as Balcony House at Mesa Verde National Park. Historic and prehistoric structures and the events surrounding them are key park cultural resources, forming the basis for 220 park units, and are integral to many other parks. The NPS defines a historic or prehistoric structure as "a constructed work…consciously created to serve some human activity." They include buildings, monuments, millraces, canals, ships, railroad locomotives, rolling stock, stockade and fences, defensive works, temple mounds and kivas, outdoor sculpture, and ruins. As of the end of FY 1998, a total 23,167 structures in 340 parks of the estimated 25,000 structures in the 378 parks have been identified.

Through applied research, information necessary for park management decisions concerning treatment and use of historic and prehistoric structures is obtained and provided to park managers. Research typically concentrates on three broad aspects of a historic structure: the historical, technical, aesthetic, or scientific associations; the developmental history or evolution; and the nature, performance, and capability of its material and systems. This information is collected, analyzed, and organized through a variety of means, discussed below.

• *Historic Resource Study* - The Historic Resource Study documents the thematic context sufficient to evaluate historical, aesthetic, technical, or scientific associations of structures, and contains enough information about the developmental history or evolution of each structure to evaluate its integrity, and enough information about the contributing environment of each structure to enable National Register documentation to be prepared. Historic resource studies are usually prepared by support office or cultural resource center staff, or under contract.

• *List of Classified Structures* - The List of Classified Structures (LCS) documents the location, historical development, and current management of historic and prehistoric structures. The LCS is a computerized inventory that is used as an analytical tool at all organizational levels to assess budgetary, scheduling, and program development needs. Structures included are either eligible for the National Register or are to be treated as cultural resources by law, policy, or decisions reached through the park planning process. The List of Classified Structures provides data to other automated systems such as the inventory and condition assessment and is usually conducted by the support office or cultural resource center staff.

In FY 1999 and in FY 2000, approximately $250,000 per year will be allocated to add 2,000 structures to the List of Classified Structures and to keep the basic management information concerning significance, threats, impacts, condition, use, and approved treatments current.

• *Historic Structure Report* - The Historic Structure Report documents research concerning condition, causes of deterioration, necessary treatments, and treatment alternatives as well as the developmental history or evolution of a structure. It is the primary guide for park management decisions concerning structure use and treatment. Historic structures reports are usually prepared by support office or cultural resource center staff, or under contract.

Park Management/Resource Stewardship

The results of the above applied research efforts contribute to meeting the NPS mission goal Ib--contributes to knowledge about cultural resources and associated values; management decisions about resources are based on adequate scholarly and scientific information. The annual goal for FY 2000, which is to increase the number of eligible historic and prehistoric structures on the List of Classified Structures by 1,000, contributes to meeting long-term goal 1b2 in that structures are identified so that park managers can consider them in their decision-making.

Olmsted Archives has a multi-year project to catalog, preserve, and provide access to its historic collection. Frederick Law Olmsted National Historic Site

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resource is increased by a minimum of 5%.
Annual Goal Ib2	By September 30, 2000, add 2,000 historic structures to the FY 1998 base of 23,167 structures (8.6%) on the List of Classified Structures.

Historic and Prehistoric Structures Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of historic and prehistoric structures inventoried on the List of Classified Structures.	23,167	24,000	25,000

Museum Collections

Museum collections from over 320 units of the National Park System are maintained in parks, at six NPS cultural resource centers, and at 136 non-Federal repositories. These collections date, in some instances, to establishment of the park and are comprised of 33.7 million archeological, 3.5 million historical, 952,000 biological, 104,000 paleontological, 76,000 ethnological, and 48,000 geological items, plus an additional 39.8 million archival and manuscript items (24,800 linear feet). The collections include items ranging from historic furnishings in the home of John Adams, to flags that flew over Fort Sumter, to Thomas Edison's handwritten notes on inventions, to the tools and furnishings of a working ranch in Montana, to botanical specimens from Yosemite, and archeological items from Mesa Verde. These museum collections are important not only in their own right, but also because of their direct association with the nationally significant sites in the National Park System.

Under the research function, our goal is to acquire and document collections that support the mission and scope of each park and use those collections to increase public enjoyment and understanding of our heritage, and its associated values. Parks use the documentation associated with collections to make informed decisions about interpreting and managing these and other park resources. For example, the drawings and photographs in the collection at Frederick Law Olmsted National Historic Site have enabled the park manager to make decisions about restoring the park's cultural landscape. The public has access to these collections through exhibits, interpretive programs, publications, World Wide Web sites, films and videos. In addition, for research purposes, the public can directly access information in collections catalog and other databases, as well as access the collections themselves. In FY 1998, parks responded to nearly 50,000 public research requests and park visitors viewed over 340,000 objects on exhibit.

The National Park Service *Museum Handbook*, which is continually revised to address changing professional standards and innovations, provides parks with detailed procedural guidance to assist them in the following key park research functions:

• *Acquisition* - Parks acquire collections according to the scope of collection statement, which defines what a park will collect based on the park's mission and legal mandates.

• *Documentation and Cataloging* - Parks research and document collections and catalog them in the Automated National Catalog System (ANCS).

• *Collections Planning and Management* - Parks write collection management plans to guide management of the collections according to professional standards and to facilitate park goals.

• *Inventory and Accountability* - Parks annually inventory collections in order to maintain accountability.

• *Research, Exhibits, and Accessibility* - Parks research the collections and their associated documentation in order to develop interpretive programs, exhibits, publications, and multi-media programs for the public. The public accesses information about the collections through these educational tools or by direct searches of the catalog (ANCS) and examination of individual objects for research. In addition, parks loan collections to other museums for exhibit and research.

Park staff, cultural resource center staff, partners, or contractors provide direct management functions for the collections. Support office and cultural resource center staff provide planning and technical assistance. The national office provides policy and technical guidance and develops Servicewide systems. In FY 1998, the number of archives acquired nearly offset the number cataloged, so that the percentage of archives cataloged rose only slightly over FY 1997. However, parks exceeded the targets for numbers of objects and archives cataloged.

In FY 1999, the NPS will emphasize the cataloging of the backlog of uncataloged collections. Parks will catalog 1.7 million items, i.e., approximately, 660,000 objects and 1.04 million archival records and manuscripts, thus increasing the cataloged inventory by 5 percent. In addition to being available at the parks, the data will be aggregated and centrally archived at the National Catalog. Also, in FY 1999, 291 parks that manage museum collections will continue to implement the revised cataloging and collections management software package ("ANCS+"). In addition, the *Museum Handbook* will be revised to provide updated guidance on museum record keeping and new information on use of collections, including guidance on producing and marketing reproductions.

In FY 2000, goals for the Collections Management Program include cataloging a backlog of 1.7 million additional items. As in FY 1999, the cataloged inventory would increase by 5 percent. Also, in FY 2000, as in FY 1999, the 291 parks that installed the new software program in FY 1998 would be able to acquire enhancements, obtain needed technical support and customization, and catalog collections. Revisions to the *Museum Handbook* will include guidance on exhibits, research, and furnished historic structures.

Through these and other activities, the museum collections program supports the achievement of mission goal Ib--to contribute to knowledge about resources and associated values and to make management decisions about resources and visitors based on adequate scholarly and scientific information. Cataloging collections and improving access to collections and their associated documentation directly contribute to knowledge of these resources. The performance goal for FY 2000 is associated with long-term goal Ib2, increasing the inventory and evaluation of cultural resources. Specifically, parks propose to catalog 1.7 million items annually, increasing cataloged collections (archives and objects) from a FY 1997 baseline of 31.4 million cataloged items to 36.5 million in FY 2000. Achievement of these goals will have the outcome of making these resources accessible for the public's enjoyment and understanding of our cultural and natural heritage. Based on FY 1998 data, it appears that NPS will exceed this goal in FY 2000.

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resources is increased by a minimum of 5%. [1997 baseline-31.4 million cataloged items]

Park Management/Resource Stewardship

Annual Goal Ib2	By September 30, 2000, increase the total number of museum objects cataloged by another 1.7 million. [1997 baseline-31.4 million cataloged items]

Museum Collections Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Percent of objects cataloged	56%	58%	60%
Percent of archives cataloged	34%	36%	39%
Number of backlogged objects cataloged	774,000	660,000	660,000
Number of backlogged archives cataloged	1,646,000	1,040,000	1,040,000

Museum Collections Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of items on exhibit	341,000	341,000	341,000
Number of public research requests	49,900	49,900	49,900
Number of NPS research requests	14,300	14,300	14,300

Servicewide Project Funding

The Cultural Resources Preservation Program (CRPP) provides funds for archeological, ethnographic, and historical research; the preparation of management studies, object cataloging, historic structure reports and cultural landscape reports; and other research, planning, and data collection activities. The CRPP, funded at $13.5 million in FY 1999, provides funding for both the research projects described in this section, and the resource management projects described in the Cultural Resources Management section that follows.

In FY 1999, funds are again being targeted for three initiatives to improve the availability of basic cultural resources information for resource management planning and interpretive purposes. These initiatives are discussed above and include $2.3 million for the systemwide archeological inventory, evaluation, and documentation program; $860,000 for historic resource studies; and $988,000 for the inventory and documentation of historic and prehistoric structures and cultural landscapes.

Examples of projects include a cultural landscape report for the Hensley Settlement at Cumberland Gap National Historical Park; ongoing archeological inventory at Badlands National Park; a collection management plan for Andersonville National Historic Site; a historic resource study for Sitka National Historical Park; preparation of national historical landmark historic structures reports at Mount Rainier National Park; and National Register nominations at Theodore Roosevelt National Park.

Applied research funds are also used for salary and support costs for specialists in Washington, D.C., and support offices for overall program development, coordination, and direction of the cultural resources research activities of the NPS. Applied research funds for support offices are used for cultural resource specialists to provide program coordination and support. Limited funding and staff for cultural resources management at the park level make this arrangement the most efficient way to meet cultural resource management objectives in parks. Cultural resource specialists in the support offices and the Harpers Ferry Center carry a share of the research load for parks that lack the necessary personnel or funding. Contract work frequently augments NPS staff or is used to acquire specialized expertise. These funds also cover a portion of the cost of the cultural resource centers in certain Regions. The centers, also staffed by cultural resource specialists, support the cultural resources management objectives of the NPS through a program of public education and outreach, research, technical assistance, and centralized management of museum objects.

FY 2000 BUDGET REQUEST

	2000 Budget Request	Program Changes (+/-)
▪ Cultural Resources Applied Research $(000)	22,152	+5,535

The FY 2000 request for Cultural Resources Applied Research is $22.152 million, which represents an increase of $6.065 million over the FY 1999 enacted level. The FY 2000 proposed programmatic increase of $5.535 million to Cultural Resources Applied Research activities includes:

	$(000)
▪ Park Base Operations Increase	35
▪ Collections Management Program	500
▪ America's Treasures Online	5,000
Total	5,535

Justifications for these increases are included at the end of this activity's presentation.

E. Cultural Resources Management
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $66,132,000

Cultural Resources Management is the preservation, maintenance, and protection of cultural resources to ensure that these resources receive the care necessary to perpetuate their existence. Although this work is done at the park level, it is supplemented by Region and Servicewide funding, especially for major preservation work. Lack of maintenance leads to accelerated deterioration, increased costs for repair, or the eventual loss of the cultural resource.

Ongoing assessments of park cultural resources have found that archeological sites, historic and prehistoric structures, cultural landscapes, and collections are at risk because of various activities within and beyond park boundaries. These assessments have identified vandalism, lack of adequate storage and care of park museum collections, weather, and air pollution as problems. The assessments also indicate that resources can be impacted through inadequate attention to stabilization, maintenance, and repair of structures and landscapes, or failure to monitor changes in the resource and to correct improper uses.

Several requirements must be met to ensure adequate resource preservation: (1) Routine and cyclic preservation maintenance activities must be completed when needed. (2) The condition of the resources must be inspected and monitored to obtain warnings of potential threats, to determine preservation requirements, or to take corrective action. (3) Preservation projects must be completed so that routine or cyclical preservation maintenance will perpetuate the cultural resource. This includes correcting museum storage facility deficiencies and stabilizing threatened structures, landscapes and sites. (4) Professional standards and guidelines for operational or project work must be developed to conserve basic resources.

Archeological Resources

Archeological resources are susceptible to deterioration from natural forces of weather and erosion, looting or vandalism and impact from park operations and visitors. Regular monitoring and maintenance is an important part of effective management. The 1997 baseline data on site condition was available for ca. 30 percent of the archeological sites reported electronically; only 40 percent of the known archeological sites had electronic records. A major focus in FY 1999 will be to continue to enter data on site condition from backlog and new site records. Professional guidance in

planning and implementing resource studies is equally important. To assist parks in protecting sites, information about archeological resources in parks is shared with professionals and the general public to increase knowledge about their significance. Active interpretation and outreach programs and increased public access to information foster greater appreciation of the need to protect and preserve archeological resources. These professional and popular public outreach materials assist in helping park visitors understand and appreciate the archeological resources in parks and on other public lands.

Performance Goals

Long-term Goal Ia8	By September 30, 2002, 50% of the recorded archeological sites [with condition information] are in good condition. [From baseline of 5,400 sites with condition information]
Annual Goal Ia8	By September 30, 2000, 48% of the recorded archeological sites with condition information in the Archeological Sites Management Information System are in good condition. [From baseline of 5,400 sites with condition information]

Archeological Resources Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of sites in good condition, reported electronically	4,200	6,100	6,300
Percent of archeological sites with condition information in the Archeological Sites Management Information System in good condition	44%	47%	48%

Archeological Resources Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of incidents of archeological looting and vandalism in parks	300	500	500
Number of NPS archeological reports available online through NADB-Reports	6,270	6,400	7,000
Number of public visits to NPS archeological web pages	1,100/day	1,300/day	1,500/day

Ethnographic Resources

Applied ethnographic research helps managers and planners meet their requirements to work cooperatively with cultural groups that have longstanding associations to resources in existing or proposed parks. Ethnographic or cultural anthropology studies document present-day ways of life, including values, beliefs and practices, and the cultural and natural resources and places people deem important in their religion and economy, ethnic history and sense of family and community. Studies have been conducted with American Indians, Alaskan Natives and other Native Americans, African Americans, Appalachian people and more. Several types of routine studies are undertaken Servicewide, including the Ethnographic Overview and Assessment, which reviews available data on specific groups and parks, initiates consultation with involved groups, and develops baseline information on resources and their traditional uses. Other studies focus on traditional resource uses in Alaska and elsewhere, and on the concerns of communities and other stakeholders affected by park planning.

Ethnographic studies provide:

- professionally sound strategies, recommendations, and alternatives for consulting and working collaboratively with park-associated groups;

Park Management/Resource Stewardship

- data required for informed decisions about park planning and the culturally appropriate use, protection, treatment and interpretation of resources;
- information on their own tribal or community ways of life that each studied group can add to their own library.

Ethnographers also undertake special projects, training, and consultation, and provide technical assistance to both parks and park-associated communities to help achieve mutually agreeable solutions to the treatment and use of ethnographically meaningful resources. Professional expertise is also provided to the Department and interagency work groups to enhance consideration of Native American, African American, Hispanic and other local groups in policy and program development. These professional and popular outreach efforts also assist in promoting public understanding of ethnographic resources and the communities that have long valued them.

Performance Goals

Long-term Goal Ib2	By September 30, 2002, the 1997 baseline inventory and evaluation of each category of cultural resources is increased by a minimum of 5%.
Annual Goal Ib2	By September 30, 2000, following finalization of the baseline in FY 1999, set target that increases the total number of items on the Ethnographic Resources Inventory by 50 items.

Ethnographic Resources Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of special projects undertaken by the National Center that affect parks, heritage areas, or ecosystems managed	4	4	4
Number of planning, policy, or guidance documents reviewed for incorporating ethnographic materials issues	35	35	35
Number of Interior, NPS, and interagency workgroups advised	6	7	7
Number of exhibits, workshops, scientific sessions organized, papers given at professional meetings, and publications	7	8	8

Cultural Landscapes and Historic and Prehistoric Structures

The preservation and maintenance of approximately 25,000 historic and prehistoric structures and an unknown number of cultural landscapes is performed by park personnel or contractors with technical training and experience in the special skills necessary to inspect, monitor, maintain, and preserve these resources in accordance with written procedures developed by resource specialists. Complex preservation work is conducted under supervision of professional staff from parks, support offices or resource center staff or under contract.

Inventory and Condition Assessment Program. Planning for maintenance requires detailed information about the nature and condition of the resources' respective features. Such information is obtained by systematic inspections and recording in the Inventory and Condition Assessment Program by park staff.

Work includes general tasks such as scheduled inspections, condition assessments, monitoring, rejuvenative pruning, stabilizing prehistoric ruins, arboricultural services, repainting weathered historic buildings, vista management, replacing roofs, replacement of missing or deteriorated plant material, and monitoring structural movement.

The results of these resource management efforts contribute to meeting NPS mission goal Ia--cultural resources and associated values are protected, restored and maintained in good condition and managed within their cultural context. The annual goals for FY 2000 for historic and prehistoric structures and cultural landscapes are to increase the

percentage of structures in good condition, contributing to the achievement of long-term goal Ia5: Historic Structures, and the percentage of cultural landscapes in good condition, contributing to the achievement of long-term goal Ia7: Cultural Landscapes.

Performance Goals

Long-term Goal Ia5	By September 30, 2002, 50% of the historic structures on the 1998 List of Classified Structures are in good condition.
Annual Goal Ia5	By September 30, 2000, 12,125 of the 25,000 historic structures on the List of Classified Structures are in good condition (48.5%).
Long-term Goal Ia7	By September 30, 2002, 37% of the cultural landscapes on the 1998 Cultural Landscapes Inventory are in good condition. [From baseline of 236 landscapes with condition information.]
Annual Goal Ia7	By September 30, 2000, 83 of the 236 cultural landscapes on the Cultural Landscapes Inventory are in good condition (35.2%).

Historic and Prehistoric Structures and Cultural Landscapes Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Percent of historic and prehistoric structures on the List of Classified Structures in good condition.	43.1%	47.7%	48.5%
Number of historic and prehistoric structures on the List of Classified Structures in good condition.	9,985	11,448	12,125
Percent of landscapes on the Cultural Landscapes Inventory in good condition.	32.6%	33.9%	35.2%
Number of cultural landscapes on the Cultural Landscapes Inventory in good condition.	77	80	83

Museum Collections

Museum collections from over 320 units of the National Park System are maintained in parks, at six NPS cultural resource centers, and 136 non-Federal repositories. The collections include 37.3 million archeological, ethnographic and historical objects, 1.1 million biological, geological, and paleontological specimens, and 39.8 million archival and manuscript items. Some are individually significant, such as George Washington's campaign tent at Colonial National Historical Park. Others are recognized as part of a systematic scientific collection, such as the archeological collections from Chaco Culture National Historical Park. Others are important for their contribution to the interpretation of a site, such as the eyeshade in the office at Carl Sandburg National Historic Site.

Under the resource management function, the goal is to preserve and protect park collections so that the collections are accessible to current and future generations for enjoyment and appreciation. Parks monitor and control collection storage and exhibit environments, provide security and fire protection to minimize the risk of damage and loss, assess the condition of individual objects, and provide cleaning, stabilization and other treatments to park collections.

The National Park Service provides technical guidance to parks on preservation and protection of collections in the *Museum Handbook* and *Conserve O Gram*, which are also available to the general public and are popular resources in the Nation's museum community at large. These publications, which are continually revised to address changing professional standards and innovations, provide parks with detailed procedural guidance to assist them in the following key park resource management functions:

Park Management/Resource Stewardship

• *Adherence to Professional Standards* - Using the standardized Checklist for Preservation and Protection of Museum Collections, parks assess the status of museum storage and exhibits relative to professional standards for environment, security, fire protection, housekeeping and planning. Parks take corrective actions as needed. Corrective actions that cannot be accommodated in current budgets are programmed for future funding. Twenty-three parks and one center need construction program funds in order to address their deficiencies.

• *Monitoring* - Parks monitor the museum environment for light, temperature, relative humidity, air quality, and pests. In addition, parks routinely inspect their security and fire protection systems.

• *Housekeeping* - Parks perform regular housekeeping and cyclic maintenance tasks to keep the storage and exhibit environments as well as the objects in good condition.

• *Collection Management Planning* - Parks complete and implement management plans to preserve and protect the collections, e.g., collection storage plan, emergency operations plan, integrated pest management plan.

• *Survey and Treatment* - Parks survey the condition of individual items and provide treatment for stabilization, thus allowing them to be safely accessed for research and exhibit. Parks give priority to treating objects for exhibits and may acquire reproductions for interpretive or exhibit programs if the original object is too fragile.

Park staff, cultural resource center staff, partners, or contractors provide direct management functions for the collections. Support office and cultural resource center staff provide planning and technical assistance. The national office provides policy and technical guidance and develops Servicewide systems.

In FY 1998, parks made many improvements to the preservation, protection and accessibility of museum collections. At Lincoln Home National Historic Site, the construction of a barn as part of the historic district restoration program provided an opportunity to adapt the structure for a modern museum storage facility. Inside the reconstructed barn, the architects created a climate controlled, super-insulated structure for the collections.

Reconstructed Arnold Barn that houses museum storage, Lincoln Home National Historic Site

Museum Storage for history and archeology collections, Arnold Barn, Lincoln Home National Historic Site

In FY 1999, the NPS will emphasize the correction of deficiencies identified on the Checklist for Preservation and Protection of Museum Collections. Parks will correct nearly 2,000 deficiencies, including more than 1,300 fire safety deficiencies that are procedural and can be corrected at minimal expense. New technical preservation guidance will be issued in *Conserve O Gram* and the NPS *Museum Handbook* and a Servicewide object/archive condition assessment strategy will be tested to quantify object conditions and treatment needs and establish a process for prioritizing treatments.

Through these and other activities, the museum collections program supports the achievement of mission goal Ia--to protect, restore and maintain resources in good condition. The performance goal for FY 2000 is associated with long-term goal Ia6 to ensure that the preservation and protection conditions where park museum collections are stored and exhibited meet professional standards. Using the standards contained in the NPS Checklist for Preservation and Protection of Museum Collections, the NPS proposes to increase the number of standards met from 59.4 percent in FY 1997 to 65.5 percent in FY 2000. Achievement of these goals will have the outcome of improving preservation of park museum collections, and the natural and cultural heritage they represent.

Performance Goals

Long-term Goal Ia6	By September 30, 2002, 68% of preservation and protection conditions in park museum collections meet professional standards. [Applicable standards-83,639; applicable standards met-56,875]
Annual Goal Ia6	By September 30, 2000, increase the checklist standards met to 65.5%.

Museum Collections Performance Information	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Percent of conditions in park museum collections meeting professional standards	61.7%	64%	65.5%
Number of preservation/protection deficiencies corrected	1,975	1,938	1,255

Park Management/Resource Stewardship

Interior Museum Property Program

The Interior Museum Property Program, in partnership with the National Park Service and other bureaus, develops and coordinates departmentwide museum policy and strategies. It oversees development and implementation of bureau plans for managing more than 110 million museum property artifacts, specimens, and documents in the Department of the Interior's bureaus and offices. The program provides departmentwide training and technical assistance to bureaus and offices, maintains departmentwide data from bureau reports, and monitors bureau progress in implementing museum property management plans.

In FY 1999, the Interior Museum Program will monitor work toward the performance measures identified in the Department's Strategic Plan, oversee the implementation of bureau plans for managing museum property, provide departmentwide technical assistance and training to bureau curatorial staff, initiate follow-up actions recommended at the second national conference on "Partnership Opportunities for Federally-Associated Museum Collections" held November 18-20, 1998, (actions aimed at increasing public access to collections and improving customer service through more efficient collections management). The program will present exhibits and programming throughout the year to commemorate the Department's 150th anniversary (on March 3, 1999). This program is funded at $253,000 in FY 1999.

In FY 2000, the Department will strengthen training materials for bureau curatorial staff and improve services to the increasing number of customers who access collections through exhibits and for research and resource management. The Interior Museum Program's Branch of Museum Services will continue to provide technical assistance to bureaus as they address substantial cataloging backlogs, correct environmental and security deficiencies, and increase access to and use of museum collections both in Interior facilities and in the facilities of non-Federal institutions with which Interior bureaus partner to manage collections. The Program will develop a master plan for modernizing the facilities of the Interior Museum in the headquarters building to more fully integrate its operations into the departmentwide Interior Museum Program as a demonstration and training facility.

The overall outcome of these activities will be increased public access to Department of the Interior museum collections through increased availability of these collections for use in resource management, research, and public interpretation programs throughout the Department and in the more than 400 non-Federal institutions that partner with Interior bureaus in managing these collections.

DOI Performance Goals – Interior Museum Property Program

Long-term Goal A	By September 30, 2002, maintain or increase the ability of the public to access information about museum property, as measured against a baseline established in FY 1998 [15,207,000].
Long-term Goal B	By September 30, 2002, increase the number of museum objects available for research or public interpretation by improving our basic accountability for these resources, as measured against a baseline established in FY 1998 [36,376,000].
Long-term Goal C	By September 30, 2002, develop Internet access to all Interior museum collection sites in Federal facilities.

Park Management/Resource Stewardship

Interior Museum Property Program Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Attendance at locations exhibiting cultural and museum objects	15,207,000 (baseline)	15,511,000 (baseline+2%)	15,815,000 (baseline +4%)
Number of museum objects accurately catalogued	36,376,000 (baseline)	38,195,000 (baseline+5%)	40,014,000 (baseline +10%)
Percentage of sites accessible via the Internet that meet standards	45% (329 of 727 sites)	47% (baseline+2%)	49% (baseline +4%)

Native American Graves Protection and Repatriation Act (NAGPRA)

The program contributes to the compliance of the NPS with the Native American Graves Protection and Repatriation Act. The goals are: (1) to provide appropriate public notices, in the Federal Register or local newspapers, of intents to repatriate Native American human remains or cultural items to appropriate lineal descendents, Indian Tribes, or Native Hawaiian organizations, (2) to help parks establish and maintain effective, continuing consultative relationships with affected American Indian Tribes, Alaska Natives, and Native Hawaiian organizations, (3) to ensure that the requirements of the act are fully and promptly addressed, and (4) to work collaboratively with affected groups to ensure that repatriation requests are addressed and Native American graves on parklands are protected or preserved in culturally appropriate ways. The program supports professional cultural affiliation studies conducted by field units; provides training and assistance to park staff in developing and maintaining consulting and collaborative relationships; develops professionally sound information needed to address legislative and policy requirements; and provides professional services to management in conducting consultations or providing assistance to affected groups. The FY 1999 budget of $888,000 provides base funding for Servicewide program coordination and funds activities at the national, regional, and park levels to achieve program goals. A goal for this program in FY 1999 is to provide clear advice and recommendations to NPS managers regarding cultural affiliation, appropriate documentation and study, and repatriation.

Native American Graves Protection Act Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of notices of intent to repatriate reviewed and published	1	5	5
Number of notices of inventory completion published	2	10	10

Vanishing Treasures

This program was established in FY 1998 to provide funds to reduce threats to ancient prehistoric and historic sites and structures in 41 parks of the Intermountain Region. The goal is to overcome backlogged preservation work by bringing the sites and structures to a condition in which they will be preserved by routine maintenance activities. The intent also is to increase NPS expertise and capability for maintaining these sites and structures. The program includes immediate emergency actions and documentation, planning and management of projects, development and training of a skilled workforce, and provision of appropriate expertise to make the program successful. Parks, centers, or support offices, depending upon the nature of each project will have oversight. Project funds are managed at the Regional level. Funds sufficient to rebuild the skilled workforce and other expertise are provided at the park base level.

The program received an increase of approximately $1.0 million for FY1999, bringing the program total to $1,987,000. Of this amount, $1,315,000 is included in various park bases and $672,000 is maintained at the regional level for oversight and project accomplishment. The goals for FY 2000 will be to continue addressing the emergency projects not funded in previous years; implement program management; continue recruitment and training of a permanent skilled workforce; and ensure that emergency projects have been completed or are underway and eleven individuals have been recruited and trained in ruins preservation. Program activities are summarized below.

Park Management/Resource Stewardship

Emergency Needs. In FY 1998, $497,000 funded six of the 44 projects, which were identified as the most acute emergencies. In FY 1999, the NPS will apply $624,000 to address nine emergency projects.

Project Management. In FY 1998, $10,000 was used for project selection, project management, project monitoring, and a peer review system to evaluate program efficiency and effectiveness. In FY 1999, $48,000 will be required to support a new project manager, as well as the continuing activities.

Developing and Training Skilled Maintenance Experts at Parks. The cadre of skilled maintenance experts is aging and their numbers declining. There is insufficient growth to assure a steady stream of entry level replacements. In 1997, the number of maintenance experts was estimated at ten full-time and twenty-five seasonal or part-time workers, and it was estimated that this workforce needed to be increased by approximately sixty-five full-time individuals. In FY 1998, $453,000 was transferred to the base budgets of 10 parks to hire eleven individuals. In FY1999, an additional $862,000 will be used to recruit and train 10 specialists at 8 parks, including 6 that did not benefit in 1998, bringing the total 16 parks that have benefited from base increases under this initiative. Some of these specialists include archeologists, historical architects and engineers, in addition to the skilled craftspeople

Vanishing Treasures Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of projects resulting in improved site conditions	6	9	10
Number of maintenance experts trained	9	5	8
Number of discipline experts trained in Vanishing Treasures conservation	2	5	5
Vanishing Treasures records of individual sites increased	100	100	100

Resource Management Planning

The Resource Management Plan is the blueprint for comprehensive management of park resources. It defines park objectives concerning both natural and cultural resources, documents the status of the resources, and outlines a plan of action to ensure their well-being. Using the plan, park managers can integrate cultural resource considerations into day-to-day programs and longer-term planning. The Service has automated this process to capture some of the data in a Servicewide database. More than 70 percent of the parks that are required to prepare plans have done so and regularly update the information in them. One requirement for projects to be funded is that the project is listed in an approved Resource Management Plan.

Cyclic Maintenance for Historic Properties Program

The objective of this program is to provide the means whereby maintenance activities that are required on a fixed periodic basis for all tangible cultural resources can be done by parks. Such work is predictable and occurs in cycles longer than once in two years, e.g., repointing masonry walls of historic and prehistoric structures, pruning historic plant material, stabilizing eroding archeological sites, and preventive conservation of museum objects. This program is funded at $10.9 million in FY 1999.

Park Management/Resource Stewardship

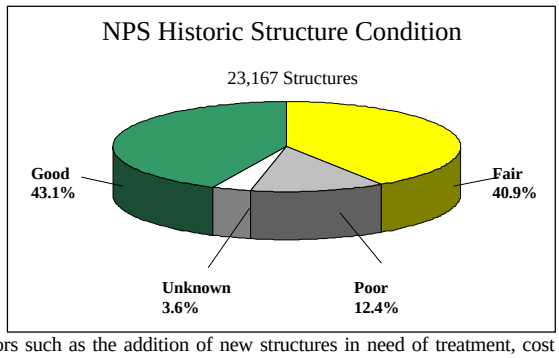
Examples of projects include cleaning and aligning national cemetery headstones at Andersonville National Historic Site, replacing wood shingles on building #4 at Chickasaw National Recreation Area, providing conservation treatment for historic furnishings at Arlington House, preserving the historic photo collections at Badlands National Park, and preserving retaining walls, stairways, and trails of the historic district at Mount Rushmore National Memorial.

Beginning in FY 1997 and continuing in FY 2000, the NPS will receive supplemental funding derived from fee revenue as a result of the Recreation Fee Demonstration Program. It is anticipated that additional cultural cyclic projects will be accomplished using this funding.

Cultural Resources Preservation Program

This national program provides funds for the following general categories of project work: control of the environment, security and other conditions affecting museum objects; and urgent stabilization and preservation work on archeological and historic sites, historic and prehistoric structures, cultural landscapes, and museum objects.

In FY 1998, the NPS received a $2.0 million increase in the Cultural Resources Preservation Program that will address in current dollars seven percent of the unfunded stabilization needs of the most important historic and prehistoric structures by type and historical significance over the next ten years. This will allow in FY 1999 over 100 structures in 50 parks to be stabilized and their condition changed from poor or fair to good condition. A similar number of structures will be stabilized in FY 2000. Stabilization is defined as "a treatment action to render an unsafe, damaged, or deteriorated historic or prehistoric structure stable, allowing routine and cyclic maintenance to preserve it."



As of the end of FY 1998, 43.1 percent of the inventoried historic and prehistoric structures are in good condition, but 56.9 percent are in poor, fair, or unknown condition, as shown in the accompanying "Condition" chart. This represents a 1.1 percent decrease of structures in good condition from the end of FY 1997 to the end of FY 1998. Good condition is defined as: "The structure and significant features are intact, structurally sound, and performing their intended purpose. The structure and significant features need no repair, but only routine or cyclic maintenance." The number, condition, cost for stabilization, and the backlog of historic and prehistoric structure needs are influenced by factors such as the addition of new structures in need of treatment, cost escalation, and the loss of resources due to inattention.

Examples of structures to be stabilized in FY 1999 include Elkmont structures at Great Smoky Mountains National Park, the Morrison Ranch House at Santa Monica Mountains National Recreation Area, Lafayette's Quarters at Valley Forge National Historical Park, and the Quincy Mines at Keweenaw National Historical Park. Projects to be funded by this increase do not include those funded through the Vanishing Treasures Initiative.

In FY 1998, parks made many improvements to preserve and protect museum collections. Natchez National Historical Park installed a dry-pipe fire suppression system in Melrose Mansion; Grant-Kohrs Ranch National Historic Site installed security, fire and electrical systems in historic structures with collections; and Grand Teton National Park removed 2,500 deteriorating and highly flammable nitrate negatives, which were a threat to other collections, structures, and staff, and sent them to be copied at the Western Archeological and Conservation Center. In FY 1999, Cape Cod National Seashore and Fort Raleigh National Historic Site will rehouse collections in new facilities; Martin Luther King, Jr., National Historic Site will conduct a fire protection and security survey for the historic structures and museum collections; and Vicksburg National Military Park will continue a multi-year project to construct a new museum storage facility that meets professional standards for environmental control, security, and fire protection.

Park Management/Resource Stewardship

Stabilization of archeological ruins, earthworks, and other similar features in parks has been an ongoing concern, most recently resulting in the Vanishing Treasures Initiative in the American southwest. Related efforts under the Cultural Resources Preservation Program to document the effects of natural forces, such as wildfire and erosion, also provide critical information for identifying and evaluating appropriate preservation treatments for archeological resources. The study at Mesa Verde National Park to monitor sites that were treated to prevent erosion caused by the Chapin #5 wildfire will provide information on stability, structure decomposition, and artifact migration. Other proposed efforts, while not as dramatic, will provide additional protection for sites, such as studies of the impact of livestock grazing on archeological sites at Black Canyon of the Gunnison National Monument and protective fencing planned at Amistad National Recreation Area.

Beginning in FY 1997 and continuing in FY 2000, the NPS received supplemental funding from fee revenue as a result of the Recreation Fee Demonstration Program. It is anticipated that additional cultural resources preservation projects will be accomplished using this funding.

Support Offices and Cultural Resource Centers

Specialists (applied ethnographers, curators, archivists, conservators, archeologists, historians, historical architects and historical landscape architects) at the support offices, cultural resource centers, and the Harpers Ferry Center carry a share of the preservation maintenance workload for parks that lack the necessary personnel or funding. Contract work frequently augments system office staff or is used to acquire specialized expertise. Regional funds also cover a portion of the cost of the cultural resource centers in certain Regions. The centers provide services to the parks in the form of research, project supervision, technical assistance, management planning, and centralized management of museum objects. The NPS maintains the following cultural resource centers:

Alaska Regional Curatorial Center
Midwest Archeological Center
Museum Resource Center
Northeast Cultural Resources Center
Olmsted Center for Landscape Preservation
Southeast Archeological Center
Western Archeological and Conservation Center

FY 2000 BUDGET REQUEST

	2000 Budget Request	Program Changes (+/-)
▪ Cultural Resources Management $(000)	73,238	+5,440

The FY 2000 request for Cultural Resources Management is $73.238 million, which represents an increase of $7.106 million over the FY 1999 enacted level. The FY 2000 proposed programmatic increase of $5.440 million to Cultural Resources Management activities includes:

	$(000)
▪ Park Base Operations Increase	2,446
▪ Collections Management Program	500
▪ Cultural Resource Preservation Program	1,500
▪ Vanishing Treasures	994
Total	5,440

Justifications for these increases are included at the end of this activity's presentation.

F. Resources Protection
FY 1999 Estimated Program and Anticipated Accomplishments

Enacted: $39,383,000

Natural and cultural resources are continually threatened by human impacts and uses and by such illegal activities as poaching which causes harm and, in some cases, destruction of the resources for which national parks were established.

Natural resources protection is one of the many responsibilities of park law enforcement personnel as well as all Park Service employees, and is achieved through the management of legal consumptive uses, prevention of illegal consumptive activities, phaseout of unauthorized uses, approved provision for nonrecreational special park uses, and resolution of boundary issues. The protection of resources is accomplished through a program of patrols, investigations, remote surveillance, education of employees and the public, improved security, and increased interagency cooperation. Preventive measures focus on educating offenders as to the effect of inappropriate or illegal behavior on irreplaceable resources. Similarly, educating Park Service employees and visitors about the impact of their work habits and behavior on the quality of resources is an effective long run preventive measure as well as recognizing illegal activities.

The poaching of wildlife from national parks has been steadily increasing each year for the past several years. A recent assessment we conducted showed that poaching involves the illegal removal of 105 species of wildlife from approximately 153 park areas around the country. The illegal removal of wildlife from the parks is suspected to be a factor in the decline of at least twenty-nine species of wildlife, and may lead to the extirpation of nineteen species from the parks. In addition, several species of wildlife Federally listed as threatened or endangered are being killed within units protected by the National Park Service.

Five of the species that are Federally listed as endangered are being poached in fifteen different parks. These species are the bald eagle, peregrine falcon, hawksbill sea turtle, California brown pelican, and the Schaus swallowtail butterfly. Seven species of wildlife listed as threatened are also suffering from poaching activities. These are the Steller sea lion, grizzly bear, spotted owl, greenback cutthroat trout, green sea turtle, loggerhead sea turtle, and the desert tortoise.

Wildlife are poached for different reasons, often for food or for the sale of body parts to a local or international commercial market. For example, bear gall bladders and bear paws are often taken for the oriental wildlife parts trade for medicinal purposes. Elk antlers, especially those taken from national parks where the forage has no chemicals, are also traded on the Asian market. Other wildlife parts serving the illegal trade in local and world markets include yellow-crowned night-herons (food), raptors (falconry), snakes (fashion and pets), and paddlefish (caviar).

Annual law enforcement statistical report. The National Park Service uses as its baseline document an annual report on law enforcement activities within the parks to include resources crimes. For some years it has been known that resource crimes constitute the largest single category of crimes in the parks. Examples include poaching of plants and animals, timber cutting and theft, Archeological Resources Protection Act (ARPA) crimes, driving off road and encroachment on to NPS lands. As the Service continues to improve its information gathering ability it may discover resource crimes are a bigger threat than we now envision.

Site destruction. The National Park Service averages close to 400 documented violations where archeological resources are damaged or destroyed annually. These include Indian burial sites, tools, weapons, pottery, and baskets associated with historic and prehistoric subsistence and village sites; ceremonial sites; shipwrecks and associated artifacts. Paleontological resources, ranging from complete dinosaur skeletons to fossilized amber crystals containing prehistoric animal embryos, are also being depleted by a growing illegal domestic and international market. In addition to outright pillaging of public lands through illegal excavation, thefts of fossil resources have also occurred in NPS and other public museums.

Fossil theft cases have implicated violators involved in other criminal activity such as violations of the Archeological Resources Protection Act, illegal drugs and weapons trade, U.S. Customs, and Internal Revenue Service violations. To date, funding to provide enforcement protection of fossil resources has been minimal while documented violations have increased. Initial funding of a paleontological protection program in the Rocky Mountain region enabled rangers to uncover a major fossil poaching organization involving several States within the U.S. and South American countries. Servicewide ARPA funding in FY 1999 was $1,299,000. The FY 2000 goal for this program is to increase the reporting capability of the parks to enable an accurate determination of progress.

Resources Protection Workload Factors	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Number of commissioned rangers	1,604	1,600	1,580
Number of part-time rangers	610	600	550
Number of ARPA cases	340	360	370
Number of vandalism cases	3,475	4,030	4,000
Number of resource incidents	13,350	12,500	12,000

Alaska Subsistence

Within the State of Alaska, the National Park Service has a unique responsibility for resources protection as determined by the Alaska National Interest Lands Conservation Act (ANILCA) of 1980. The act establishes provisions that prioritized consumptive use of fish and wildlife for rural residents of the State of Alaska. The NPS has responsibility for monitoring the taking of consumptive resources on parklands. Priority over all other consumptive uses is to be provided based upon local rural residency, availability of alternative resources, and a customary and direct dependence upon the fish and wildlife populations as the mainstay of livelihood. In the past, the State of Alaska had been charged with assuring this priority. In 1989, however, the Alaska Supreme Court ruled that the State could not manage the use of public lands based on subsistence and be consistent with its constitution, which provides equal protection for all residents. Subsequently, Federal agencies are now charged with implementing the subsistence provisions on public lands as required by ANILCA. Minimal ANILCA requirements consist of protecting fish and wildlife resources on

Park Management/Resource Stewardship

Federal public lands; studies to document subsistence use by area and species; development of management plans, policies and regulations for subsistence seasons and bag limits; and creation of an extensive public information/awareness system. Approximately $1.8 million has been allocated to the Alaska Region and park bases for this program in FY 1999.

The current Federal subsistence management program has focused on wildlife and not fisheries. However, due to a 1995 court order, the Federal Government has been charged with a significant expansion of the program to include management of subsistence fisheries on approximately 60 percent of the waters within the State of Alaska (including 102,500 miles of rivers and streams). The scope of fisheries management in Alaska is immense and complex, particularly for the commercially important Pacific salmon species. Without adequate funding to responsibly monitor and manage stocks, the Federal Government could be forced to set ultra-conservative harvest levels which could limit commercial fisheries with severe economic impacts. The FY 1999 appropriations bill has earmarked $11.0 million to the Departments of Interior and Agriculture to implement an expanded fisheries management program. Approximately $1.8 million of that money is earmarked for the National Park Service, to be added to the $1.8 million currently allocated for wildlife management. However, the appropriations bill postpones agency expenditure of these funds in order to allow the Alaska State legislature one more chance to pass a bill or resolution which will permit the State to be in compliance with ANILCA and reassume management of subsistence on Federal lands. If the State legislature does act prior to June 1, 1999, the entire $11.0 million will be transferred to the State as a grant to assist the State in implementing a program of subsistence management. If the State fails to act by June 1, then $1.0 million of the $11.0 million will be made available to the Department of Interior to begin planning for and implementing an expanded subsistence fisheries management program. If the State takes action after June 1, 1999, but before October 1, 1999, then the remaining $10.0 million will be transferred as a grant to the State. If the State fails to take action by October 1, 1999, then the remaining $10.0 million will be made available to the Departments of Interior and Agriculture ($7.0 million to Interior and $3.0 million to Agriculture), and will be available to those agencies until expended.

The $1.8 million earmarked for the NPS for an expanded subsistence fishery management program represents a need during the startup year only, since implementation of the program will have to be phased in over the course of the first year. The recurring need for the NPS for the expanded fishery program, beginning in FY 2001, is approximately $3.2 million. Added to the $1.8 million currently allocated by the NPS, this would result in a total of $5.0 million for NPS subsistence management programs, should the additional funds be provided after October 1, 1999.

FY 2000 BUDGET REQUEST

		2000 Budget Request	Program Changes (+/-)
▪ Resources Protection	$(000)	41,409	+1,359

The FY 2000 request for Resources Protection is $41.409 million, which represents an increase of $2.026 million over the FY 1999 enacted level. The FY 2000 proposed programmatic increase of $1.359 million to Resources Protection activities includes:

	$(000)
▪ Park Base Operations Increase	1,359
Total	1,359

Justification for this increase follows.

JUSTIFICATION OF FY 2000 BUDGET REQUEST FOR RESOURCE STEWARDSHIP

		2000 Budget Request	Program Changes (+/-)
Resource Stewardship	$(000)	266,775	+33,353

The FY 2000 request for Resource Stewardship is $266.775 million and 2,965 FTE, which represents an increase of $37.956 million and 228 FTE above the FY 1999 enacted level. The programmatic increase of $33.353 million for the Resource Stewardship subactivity is justified by the proposed changes that follow:

Resource Stewardship (General)

▪ ***Presidio Transition (-$440,000; -2 FTE)***: The NPS is proposing a decrease of $4.239 million and 22 full-time equivalents in FY 2000 from NPS operations at the Presidio of San Francisco in response to a transfer of functions to the Presidio Trust in compliance with Public Law 104-333, the Omnibus Parks and Public Lands Management Act of 1996. The Omnibus Parks Act authorized the establishment of the Presidio Trust, a wholly owned Federal Government corporation overseen by a Board of Directors. The legislation stipulated that the Presidio of San Francisco in its entirety remain organizationally and administratively within the National Park System. However, the law specified that the Presidio Trust would have operational jurisdiction over 80 percent of the land area and most of the facilities, which has been designated Area B. The National Park Service would retain operational responsibility for the remaining 20 percent of the land area and facilities (designated Area A), plus a number of key Presidio-wide functions.

In FY 1999, following assumption by the Presidio Trust of a major portion of the operating and management responsibility and functions in Area B, the NPS appropriation for Presidio operations was accordingly reduced (by $9.664 million) to reflect this transfer. In FY 2000, to continue the transition process, the NPS is requesting a further funding reduction of $4.239 million. This request will reduce funding of natural resource management programs (Resource Stewardship) by $440,000; interpretation and education and health and safety (Visitor Services) by $3.290 million; and management and administration (Park Support) by $509,000.

Park Management/Resource Stewardship

▪ ***Everglades Critical Ecosystem Studies Initiative (-$4,000,000)***: The need for the critical ecosystem studies initiative in FY 2000 has been determined to be $8.0 million. See base program narrative for a full description of how the $8.0 million program for FY 2000 will be expended.

Funding for these studies was requested in FY 1998 and FY 1999 principally to provide a scientific basis for key decisions on the overall direction of Everglades restoration efforts and the Corps on Engineers' Central and Southern Florida Project Comprehensive Review Study, or "Restudy." Although data from research funded in FY 2000 may not be fully available in time to support initial restudy decisions, they will support adaptive management as the restudy efforts progress. Such ongoing research and monitoring efforts are critical, but do not need to be funded at the same high level as required in prior years to establish baseline information. Consequently, funds for these studies are phased down in FY 2000.

▪ ***Park Base Operations Increase (+$9,044,000; +109 FTE)***: For FY 2000, the NPS is proposing an increase of $25.0 million for 90 park units, two national historic trails, and the United States Park Police to address specific park operational needs. The primary emphasis of the funding request concerns natural resource issues, specifically to enhance resource management programs and educate the American public about the fundamental nature and natural values of the national parks. Other priority themes include the assurance that congressionally-authorized areas or boundary expansions are sufficiently covered with basic operational funding; that facilities rehabilitated or built through investments in the construction and repair and rehabilitation program are protected; that parks in urban areas that offer unique opportunities for education are represented; that needs of the Lewis and Clark Bicentennial observation are addressed, and that visitors are provided an enjoyable and safe park experience. In addition, the Administration's priority initiative to protect coral reefs was easily overlaid on the NPS priority system that already placed the highest emphasis on natural resource stewardship.

A substantial portion of funding requests are directed toward parks experiencing severe **threats to resources**. This theme meets the objectives of the NPS Natural Resource Initiative, the number one priority of the National Park Service. Funding requests range from initiating geographic information systems to address policy questions, to monitoring threatened and endangered species, to establishing an Archeological Preservation Program to fight threats such as vandalism, erosion, and unauthorized visitation. Within the area of improved natural resource management, specific funding increases are requested this year to meet a Servicewide **coral reef initiative** targeting threatened coral reef resources at park units in the Pacific West and Southeast regions of the National Park Service. Activities funded would include new or expanded monitoring of populations of coral reef species, evaluation of possible no-take zones within parks containing recreationally exploited coral reef resources, expanded law enforcement capabilities for coral reef protection, and mitigation actions for decreased water quality.

New funding would be directed towards "**urban parks,**" defined as those parks where the primary resource of the park is located within the environs of a generally well-populated area. The urban setting of these parks presents a special challenge to the NPS in its attempt to ensure visitor safety and resource preservation. At the same time, urban areas and populations afford the NPS opportunities to educate visitors who would otherwise have little contact with or understanding of the national parks. Park programs in urban areas are instrumental in engaging and involving visitors in the mission of the NPS, fostering in them an appreciation of the importance of protecting the country's natural and cultural resources. The urban parks are a rich and easily accessible educational resource for at-risk urban youth throughout the country.

Parks with **new and special responsibilities** comprise a significant portion of the increase request. Parks acquire new responsibilities in a variety of capacities. Some are relatively new to the System, others have acquired new lands, while others have new structures or facilities to maintain. Requests for increases for parks connected to the celebration of the **Bicentennial of the Lewis and Clark** E**xpedition** reflect added needs in anticipation of the celebration including new exhibits and the needs attendant to higher visitation levels.

The NPS is also seeking increased operating funds for increasing costs associated with recurring **maintenance** of park infrastructure. Facility operations and maintenance provides for the routine daily work necessary for the basic upkeep

of facilities, to ensure that facilities are in compliance with Federal, State, and local standards, and to ensure that parks remain safe, clean, and open to visitors. Maintenance-related increases range from preventive and corrective maintenance on deteriorating public-use structures, to providing utilities, to maintaining trails, boardwalks, sidewalks, roads, and parking lots.

In addition to these broad themes, the request includes funding to address the FY 2000 requirements of the **United States Park Police** including maintenance of a new Park Police helicopter and base funding for officer recruit classes for deployment in NPS areas in Washington, D.C., New York, and San Francisco.

The specific increases cut across functional categories as defined by the NPS budget structure. Of the total amount requested, $9.044 million is estimated as the amount to be applied towards the Resource Stewardship budget subactivity. For a more comprehensive examination of the park increases requested in FY 2000, please refer to the *Analysis of Special Park Increases* section of this budget document, beginning on page NPS - 156.

Natural Resources

▪ ***Inventory and Monitoring Program (+$8,000,000; +33 FTE)***: The NPS is proposing an increase of $8 million and 33 full-time equivalents in FY 2000 for the Inventory and Monitoring Program. The overall NPS mission goal -- to base resource decisions on adequate scientific information -- cannot be met without basic inventory and monitoring information. This increase will fully fund all NPS-funded basic inventories within seven years and fully fund all prototype monitoring programs currently in design.

To meet its basic responsibilities, the NPS established an inventory and monitoring program that defines and acquires basic data and develops blueprints for monitoring. The inventory program consists of centralized NPS acquisition of eleven defined, basic data sets for all parks with natural resources, with a 12^{th} data set -- vegetation mapping -- funded through the U.S. Geological Survey (USGS) Biological Resources Division . Efficiencies accrue from coordinating acquisition with the USGS and the Natural Resource Conservation Service, as well as by coordinating basic data acquisition such as aerial photography with other Federal land managers. The monitoring portion of the strategy is two-fold: (1) funding up to eleven prototype monitoring programs involving 22 parks (some are clustered) to serve as models for other parks. Three prototypes are fully funded and four others partially funded, while the balance of the selected programs have not yet been initiated. The proposed FY 1999 program will allow completion of all four partially-funded prototype monitoring programs.

The lack of inventory data has been criticized by the General Accounting Office and many others and lack of natural resource inventories ranked behind only staff resources and overall budgets as priorities in a poll of superintendents. The NPS has made its inventory program a priority, which is reflected in its budget priorities and a long-term goal (Ib1: acquire or develop 890 of the 2,287 data sets identified in 1997 of basic natural resource inventories for all parks). However, the current GPRA performance goal for acquiring basic inventory information is to meet less than 20 percent of the outstanding need at the end of the 5-year GPRA timeframe. The goal was set at this limited level owing to lack of funding. Current estimates to complete basic inventories are about $76 million for the NPS-funded inventories plus approximately $26 million for BRD-funded vegetation mapping. Under this proposal, all facets of inventory and monitoring will be accelerated. As a result, the percentage of the basic inventory needs completed will be increased from 20 percent to approximately 40 percent by the end of the current 5-year GPRA timeframe (FY 2002) and to 100 percent by FY 2006.

Under this proposal, approximately $6.5 million of the $8.0 million will fund biological inventories, which will be administered through the Regional Offices. This will take advantage of opportunities to expand partnerships with local universities and other Federal agencies. The biotic portion of the inventories have just begun and are being initiated locally, in partnership with universities, and present fewer opportunities for efficiencies through centralized acquisition than other inventories. As a part of this increase, approximately $600,00 of the inventory funding will support the Administration's Tundra to Tropics initiative through inventories in Alaska, providing basic data essential to managing and protecting Alaska's sensitive arctic resources. In addition, biotic inventories will include inventory of sensitive

amphibian species estimated to cost $1.0 million. Abiotic inventories, such as geologic information and soils mapping, will be completed with $1.0 million of the $8 million, which will continue to be administered centrally. Specifically, the increase would result in the following changes in performance:

- All NPS-funded inventories will be completed in seven years, rather than the estimated 20 to 25 years required under the FY 1999 funding level. In particular, biotic inventories will be accelerated, including status and distribution studies for exotic species, threatened and endangered species, and other species of special concern to park managers. The increase will also provide sufficient funding for inventories to be managed and conducted on a regional basis, thereby allowing more cost-effective surveys that can be better coordinated with other land management agencies. This will facilitate cooperative regional approaches to exotic species management and endangered species recovery efforts.

The increase will also allow seven prototype monitoring programs to be fully funded, thereby providing monitoring leadership to numerous parks in each biome. Support for monitoring the highest priority resource issues in additional parks will also be available, once the inventory stage is completed in those parks. In addition, the increase will provide for serving inventory information over the Internet. This funding level and strategy is a key element of the NPS Natural Resource Initiative.

▪ ***Natural Resource Preservation Program (+$3,500,000)***: The National Park Service is proposing an increase of $3.5 million in FY 2000 for the Natural Resource Preservation Program (NRPP). This increase will nearly double the funding currently devoted to large-scale projects, nearly double the number of projects initiated annually, and target some funding to two special emphasis areas -- restoring areas damaged due to human disturbance, and restoring threatened and endangered species.

Currently $478 million in natural resource project needs are identified in Resource Management Plans, including $173 million for mitigation projects such as restoration. The $5.34 million NRPP is the major source of dedicated project funds to meet these needs, exclusive of inventory funding. More than 315,000 acres of NPS managed lands exist in damaged condition as a result of former facilities no longer needed for park management (e.g., roads, dams, canals, campgrounds). The results of this past disturbance include lost plant and animal habitat, erosion, sedimentation, poor water quality, diminished water quantity, and visual scars. With respect to threatened and endangered species, the NPS has responsibility for over 2,500 recovery tasks contained in 168 Federally approved recovery plans. More than 50 percent of these tasks, (about 1,250), are tasks necessary for the continued existence of the species. The portion of the increase targeted for restoration of human disturbance (about $750,000) will improve performance by about five percent annually, or more than 150 acres, as measured against the current Servicewide GPRA goal of 3,150 acres annually. The portion of the increase targeted for endangered species restoration (about $350,000) will increase our annual expenditures by thirteen percent and annually fund an additional ten critical recovery tasks assigned to the NPS. This increase is also part of the Natural Resource Initiative, to accelerate progress in meeting the challenges of natural resource management in the National Park Service.

In addition to the continuing and new projects already approved, additional projects will be selected and funded in FY 2000 with the increase. A panel will determine which are most ready to be implemented and most critical for immediate funding. Within the NRPP program, the NPS will obtain cost-share arrangements for up to $2.0 million in FY 2000, as part of the Administration's Partners for Parks initiative to leverage non-Federal resources for park purposes.

▪ ***Native and Exotic Species Management (+$4,000,000; +25 FTE)***: The National Park Service proposes to establish a comprehensive Servicewide program addressing biological resource management issues including native and exotic (non-native species). This funding increase will result in exceeding more than 43 percent of our annual projected GPRA goal of controlling exotic species on one percent of base acres. This translates to an estimated additional 11,400 acres controlled above our estimated goal of 21,400 acres per year. It will also contribute to our goal of restoring or improving the status of threatened or endangered species populations since more than 40 percent of all species are listed because of exotic specie status.

Park Management/Resource Stewardship

This will be accomplished by devoting a portion of the proposed increase (about 60%) to invasive species management. Two to three tactical teams comprised of specialized expertise will be established to carry out high priority exotic species control efforts in parks. Guided by the successful experiences of a pilot project at Lake Mead National Recreation Area, these teams will work with parks to identify, develop, conduct and evaluate exotic species removal projects and undertake appropriate native species restoration efforts in a number of parks. In addition, part of the increase will support major exotic species control efforts in parks that are not suited to this approach.

The remainder of this proposed increase will provide the National Park Service with a biological technical assistance program not available in the parks to address specialized, complex biological resource management issues. It will be modeled after the highly successful Water Resources Division's provision of technical assistance to parks. The program will develop staff to provide national leadership and specialized assistance to parks in emphasis areas that are technically complex and often involve legal issues, examples include: wildlife diseases, recovery of threatened and endangered species and other ecosystem functions, wildlife capture and chemical immobilization, and use of biological control agents. Parks lacking the specialized expertise necessary to address such issues will receive assistance through onsite visits by program technical experts**,** via contractual arrangements with experts, or through partnerships with appropriate groups. The proposed Servicewide biological technical assistance capability provided by this program is an important component of the Service's Natural Resource Initiative. The initiative will also contribute to meeting Service GPRA goal Ia2, recovery and restoration of threatened and endangered species, thereby accelerating progress in meeting the challenges of natural resource management in the National Park Service. Without these resources, the NPS will not be able to manage these aggressive invasive species which increase at 20 percent per year, or protect from further endangerment many of our current Federally listed species. Hence, the NPS will continue to lose our native natural resources.

▪ ***Geologic Expertise for Resource Protection (+$735,000; +6 FTE)***: The NPS is proposing an increase of $735,000 and six full-time equivalents in FY 2000 for geologic expertise. More than 160 NPS units have significant geologic resources; however, very few of these parks have geoscientists to help with research, surveys, planning, and implementation of projects necessary for geologic resource protection. The 1997 NPS resource management plan (RMP) database contains over 750 geologic resource management project needs in the parks. Major categories for these RMP needs are fossil resources (22%), soil science (22%), cave management (21%), shoreline/coastal processes (14%), and disturbed land restoration (14%). Human disturbances such as roads and trails, dams, jetties, and mines have far-reaching effects on both geologic and biologic components of park ecosystems. Effective mitigation planning and restoration require an understanding of the natural geologic setting. In addition, fragile and unique geologic resources such as fossils, caves, crystals, and minerals are increasingly threatened by visitor impacts, adjacent development, and specimen poachers. Loss of fragile geologic resources is permanent; features and their scientific value cannot be recreated or reintroduced. Successful completion of these resource protection and preservation projects requires park access to technical knowledge and geologic expertise.

The NPS Geologic Resources Management Division was created from the Mining and Minerals Branch of the Land Resources Division. The office was given additional functions and responsibility for geologic resources without additional base funding. In FY 1998, increases were obtained to initiate an abandoned mine lands program and a California Desert mining program, however, the program's funding ($2.5 million) and staff remain largely directed at NPS minerals management concerns. Outside the Geologic Resources Division and Redwoods National Park, there are only about 20 staff working as geoscientists Servicewide. The NPS does work closely with the U.S. Geological Survey, which provides limited project funding and some consultation services without reimbursement. However, while the U.S. Geological Survey can provide some specialized assistance, it cannot carry out a comprehensive NPS geologic resource management program.

The National Park Service will use the proposed to hire technical specialists to provide Servicewide support for the development and implementation of geologic resource protection projects and programs. These specialists will augment overall NPS geologic staff by about 15 percent, including addition of some technical skills essentially absent Servicewide. Specific geologic functional areas to be addressed include cave and karst systems, shoreline/coastal processes, paleontology, geologic hazards, and reclamation geology (e.g., erosion control, fluvial geomorphology, slope stability, soils, etc.). For example, these specialists would help parks address coastal erosion that is occurring at

Park Management/Resource Stewardship

San Juan National Historic Site endangering an historic battlefield and Native American gravesites, and surface erosion from an abandoned gravel pit at Cuyahoga Valley National Recreation Area that delivers 7200 tons of sediment annually to the Cuyahoga River damaging the aquatic system. Shoreline expertise would help coastal parks, such as Fire Island National Seashore, represent their interests in regional beach nourishment projects that may significantly alter beach resources at these parks. Paleontology expertise would help Zion and other parks to develop programs for protecting fossil resources, such as dinosaur bones and tracks, that are being lost to the commercial market.

These specialists will assist parks to integrate geology into resource management and park facility planning by identifying hazards and resource threats, providing information for park interpretive programs, training park staff, defining research needs, and writing plans and prescriptions as necessary to make science-based management decisions and protect park resources. Technical expertise is crucial to the design of efficient monitoring programs for geologic processes, development of effective reclamation plans for restoring disturbed areas, and the siting of park facilities to avoid geologic hazards. Staff will work closely with parks, the USGS, and external professionals to facilitate park access to the appropriate specialists and their involvement in park projects. The Geologist-in-Parks Program is an example of how the addition of staff specialists will significantly increase the ability to complete park projects with expertise through partnerships. In 1998 this program, presently administered on a part-time basis by a staff geologist, placed 40 seasonal interns and volunteer geologists (retired geologists, teachers, and students) in parks to perform geology projects, illustrating both the parks' need for geologic assistance and the effectiveness of additional technical staff attention.

This increase will improve park administration by integrating geology into planning and resource management. Without these specialists the NPS cannot integrate geology into park planning and resource management (e.g., identifying geologic hazards, defining research needs, developing effective reclamation plans, and assisting with science-based decisions to protect park resources), resulting in adverse impacts to park visitors and resources) resulting in adverse impacts to park visitors and resources, and make it difficult for the NPS to achieve its GPRA goal with respect to geologic resources to protect, restore and maintain the resources in good condition.

This proposal is part of the NPS Natural Resources Initiative, focusing on providing staff expertise and making it available to parks.

▪ ***California Desert Restoration (+$2,021,000; +6 FTE)***: The NPS is proposing an increase of $2.021 million and six full-time equivalents in FY 2000 for California Desert natural resource restoration. This represents the NPS portion of a coordinated proposal developed by the Desert Managers Group, which was established in 1994 as part of the California Desert National Performance Review Laboratory effort to meet the shared objectives of ecosystem management, customer service and organizational efficiency. This funding will be used to develop and complete a desertwide database of disturbed lands, establish a seed collection program and native plant nursery and holding facilities, initiate a desertwide restoration education campaign, and begin restoration of the California Desert. It will also provide for management and control of disturbance caused by wild burros. Desert managers will determine site restoration priorities based on the disturbed land database and regionally agreed criteria. The $2.021 million increase will be managed centrally and used as follows:

- Upland Desert Restoration [+$175,000]: Restoration of upland desert areas will be done in four phases: identification of disturbed lands, agreement by desert managers on criteria and identification of top priority restoration projects, production of plant material, and implementation of restoration projects. The fiscal year 2000 goal is to identify ten upland areas for restoration and to have seed storage and plant material staging facilities in place at each NPS desert park unit (Mojave National Preserve, Death Valley National Park, Joshua Tree National Park, Lake Mead National Recreation Area). Nursery operations at Lake Mead National Recreation Area and Joshua Tree National Park will be expanded, and a regional nursery in the Lucerne Valley and a partnership nursery at Viceroy Mine will be established to serve needs for quality desert native plant materials. This will provide plant material in place at the nursery and holding facilities to accommodate the priority initial restoration sites.

- Riparian Restoration [+$225,000]: In FY 2000, twenty springs and riparian areas will be selected for restoration by the desert managers based on regionally agreed to criteria. Plant material production of necessary riparian species

will begin. Salt cedar removal will occur at ten of the selected sites with the use of trained interagency teams, and five sites will be fully restored in accordance with developed restoration plans.

- Unauthorized Dump Cleanup and Site Restoration [+$200,000]: In FY 2000, a survey will be done of existing dumpsites by type and location. The top twenty priority dumpsites will be assessed for presence and types of hazardous material and prioritized for cleanup and restoration by the desert managers group based on regionally agreed upon criteria. Cleanup and restoration plans will be developed for ten of those sites. An interagency law enforcement strategy will be developed, along with public information material for an educational effort, to reduce the occurrence of unauthorized dumping.

- Desertwide Burro Management Strategy [+$1,200,000]: Funding will be used to develop and initiate a long-term strategy for effective management of wild burros through collaborative implementation actions and approaches. This strategy will be consistent with each agency's goals and, for NPS lands, will incorporate appropriate prescriptions as outlined in agency management plans. An integrated burro management implementation strategy will be in place desertwide in FY 2000 that assures proper management of burros to achieve agency objectives. Burro census requirements identified in park management plans will be accomplished. Funds will be used to conduct a joint roundup of burros from BLM, NPS, and FWS areas and make primary use of the BLM Ridgecrest Corral facility, in addition to others, to prepare and adopt animals. Approximately 620 burros would be removed during this fiscal year. Funds will also be used to initiate fencing of critical locations in Mojave National Preserve, Death Valley National Park, Lake Mead National Recreation Area and Havasu, Cibola, and Imperial National Wildlife Refuges, with the goal of constructing 20 percent of the fences identified in park management plans as being required to contain burro trespass.

- Integrated Regional Monitoring [+$221,000]: A regional resource monitoring program will be initiated by recognizing existing management directives and ongoing or proposed monitoring efforts. These "compliance" monitoring requirements may satisfy individual permit conditions or other purposes and every effort will be made to use existing monitoring programs as part of a more comprehensive program. However, a regional monitoring program must be able to detect environmental changes (e.g., documenting changes in habitat, detecting changes in habitat quality, and evaluating population trends for selected species) that exceed acceptable bounds (defined by the desert managers) within the Mojave and California Desert Ecoregion planning area as a whole. The monitoring plan may be modified over time based upon improved monitoring techniques, new technical or biological information, adaptive management, or other factors.

This increase will result in the following change in performance:

- The NPS will remove approximately 20 percent of the estimated burros required to meet management prescriptions at Mojave National Preserve, and 40 percent at Death Valley National Park. Lake Mead National Recreation Area will bring its herd numbers down to prescription and maintain them at prescription. Removing burros is the critical first step in healing disturbed desert lands.

- The NPS will remove exotic salt cedar from approximately 10 percent of the disturbed spring and riparian areas, and fully restore 5 percent of disturbed spring and riparian areas to natural conditions.

- The NPS will provide for an education campaign for desert dumping and restoration that will help build public understanding and support to reduce dumping and ground disturbing activity and increase healing of the desert through partnerships with diverse stakeholders.

- The NPS will initiate a major cleanup campaign for desert dumps. Twenty sites will be assessed for hazardous material and ten sites will have restoration and cleanup plans completed. One of the priorities for cleanup will be in newly designated wilderness areas.

▪ ***Resource Protection Act Implementation (+$1,500,000; +13 FTE)***: The NPS is proposing an increase of $1.5 million and thirteen full-time equivalents in FY 2000 for Resource Protection Act implementation. The National Park

Park Management/Resource Stewardship

Service does not have adequate capability to implement and take advantage of new legislation designed to allow the it to recover damages to property, facilities, natural and cultural resources, and visitor experiences. At present, funding for pursuit of recoveries for damaged resources is carried out on an opportunistic basis. Only those cases are pursued that could result in nationally significant recoveries, restoration and legal precedent. Even within those parameters, only a small percentage of cases are being pursued. This proposed budget item would result in fulfillment of a statutory mandate as well as aid in achievement of the NPS mission goals related to preservation and restoration of park resources.

The Omnibus Parks and Public Lands Management Act of 1996 expanded the use of the existing "National Park System Resource Protection Act" (16 USC 19jj) so that the NPS could seek recovery for response costs and damages to all public resources within the National Park System. It provides a means to keep the recoveries for assessment, restoration, replacement, acquisition of equivalent resources or monitoring of damaged resources, rather than returning those funds to the General Fund of the Treasury. The act applies to all resources of the National Park System including property, facilities, and natural and cultural resources. Funds recovered, but not expended on response, damage assessment, restoration and replacement, are deposited into the General Fund of the Treasury.

Using some of the techniques validated through implementation of other recovery provisions (Omnibus Parks Act and the Comprehensive Environmental Response, Compensation and Liability Act) a limited implementation of the act during FY 1998 and 1999 is underway. In a fourteen month period, since January of 1997, over $2,000,000 has been recovered in damages while less than $160,000 has been expended in seeking such recoveries. This results in a return of over twelve dollars for every one dollar spent. The limited implementation period has demonstrated a large number of potential cases currently exist and has shown that recoveries for ongoing damages can be expected in the future. Funds currently recovered have gone to: enhancement of visitor facilities; endowment of a maintenance fund for wetlands created at Crissy Field in Golden Gate National Recreation Area; and restoration of seagrass beds damaged by vessels grounding at Biscayne National Park.

Resource restoration and protection and restoration of visitor facilities and services are the outcomes of this program, as funds recovered are applied directly to restoration, recovery or acquisition of equivalent resources or facilities. The long-term GPRA goal for restoration of disturbed lands targets those lands disturbed as of FY 1997 by previous land uses, and thus is not focused on the disturbances covered by the National Park System Resource Protection Act. Nonetheless, this program is fully consistent with mission goal Ia1 relating to protection of park natural and cultural resources, as well as mission goal IIb relating to visitor experiences. Funding of this proposal would result in pursuit of all significant cases; processes would be developed, implemented and monitored for pursuit of minor or "de minimus" cases; over 80 percent of moderate recovery and restoration actions would be achieved. If results from current limited experience hold true for future cases, the increase can be expected to result in a unique source of funding for restoration and replacement of damaged resources and visitor facilities.

Without adequate funding, civil claims will not be pursued on a systematic basis against parties responsible for damage to park resources. Restoration will not be pursued under the provisions of the National Park System Resource Protection Act. Restoration work, if implemented, will be completed with public funds. Parties responsible for damage to park resources will not be held liable for their actions. In addition to a loss of potential resource recovery, scientific and educational elements of the resources will be lost or foregone; restoration techniques will not be advanced; and, individuals deprived of park experience information and knowledge.

This proposal would provide for elements of a successful program: (1) support for managing millions of dollars in claims and assuring that recovered funds are appropriately allocated, (2) technical support to ensure that implementation, especially in the early stages, is consistent with the statute, (3) support to parks for assessing damages and developing appropriate claims, and (4) evaluation of economic loss resulting from impacts to resources and visitation as well as restoration techniques. These elements can be grouped into the following two program components comprising the funding and 13 FTE requested:

Strategic and Financial Management and Litigation Support. This component provides business management, financial accountability and program development and recovery actions. One of the essential program goals for

implementation of this act is to provide for a fiscally prudent and accountable use of recovered funds and to provide for an eventual establishment of a revolving funding source for implementation of the program. In addition, appropriate policies need to be developed to assure that implementation of the program is not abusive and that incidents or damages pursued are appropriate. Litigation support would be necessary to ensure that recoveries were viable and pursued through the Office of the Solicitor and the Department of Justice.

Case Development and Management, Restoration Planning and Response Initiation. In implementing the program, the goal is not to burden existing park staff with case management and policy development duties, but to provide for recovery of de minimus cases through established protocols and to manage larger cases from "points of service." To provide for adequate case development and management a program leader along with senior and junior case officers would manage recovery actions. This would not take park staff away from immediate park needs and essential visitor services but would result in a net benefit to resource recovery and restoration.

If the provisions of 16 USC 19jj can be fully used, elements of the program may become "self-sustaining." Without these funds, recoveries for damaged resources under the act will be conducted on an opportunity basis as current staffing allows. Appropriation of the funds would allow for pursuit of recoveries in 60 percent of damage cases.

▪ ***South Florida Ecosystem Restoration Task Force (+$499,000; +6 FTE)***: The NPS is proposing an increase of $499,000 and six full-time equivalents in FY 2000 for the Office of Executive Director, South Florida Task Force. The Office of the Executive Director (OED), provides administrative, managerial, technical and policy support to the operations of the South Florida Ecosystem Restoration Task Force, Working Group and it's designated subgroups. The office is primarily responsible for coordinating and integrating the restoration activities, and for facilitating cooperation and partnerships between the participating Federal, State, Tribal, Regional, and local governmental entities.

Examples of some specific tasks for which the office is responsible include: scheduling, coordinating and facilitating all task force and working group meetings and related activities, maintaining a repository of all task force and working group records, coordinating and facilitating inter-agency communication and networking (including on-line links), developing and managing an ongoing integrated financial plan for restoration activities and projects, and facilitating and coordinating development of an annual cross-cut budget for State and Federal agencies participating in restoration work. Additionally, the OED is responsible for conducting public outreach and education to foster public and institutional support of restoration efforts.

The proposed increase would provide additional capability for public outreach and would establish a basic ability to meet the increased responsibilities of the task force, working group and the Office of the Executive Director required by the Water Resources Development Act of 1996. This request would enable the office to provide the capabilities and services to meet the expected workload in support to the task force and working group, provide administrative support to the Governor's Commission for a Sustainable South Florida, and establish a essential capability to meet the requirements of the 1996 act, either directly or through the assistance of other DOI offices.

Additionally, the increase will reduce the portion of our work that has been previously funded by non-recurring Cooperative Ecosystem Studies (science) requirements. This increase also will provide funding to enable the task force and working group to broaden efforts to enhance public involvement and awareness related to ecosystem restoration programs.
Since its establishment nearly five years ago, the office has not received any increase to cover salary increases, cost of living adjustments or changes in operational expenses due to the additional workload requirements of the Water Resources Development Act. At the same time, the workload demands and responsibilities required of this office have greatly increased. Conducting, coordinating and funding inter-agency meetings, travel throughout the State of Florida and responding to a large volume of task force, working group and public and private inquiries, have stretched the resources of the office to a point where meeting basic requirements at current funding levels will no longer be possible. The proposed budget includes $70,000 for one additional program analyst position and $75,000 to fund public information and education initiatives and activities. It also includes the addition of two student intern positions to assist the project coordination teams in their project integration efforts particularly with local governments.

Park Management/Resource Stewardship

Increased overhead costs cannot be met in FY 2000, without this increase. In addition, printing and copying services and direct mailings related to task force and working group meetings in support to the Corps of Engineers Restudy would be discontinued.

Cultural Resources

▪ ***Collections Management Program (+$1,000,000; +15 FTE)***: The NPS is requesting an increase of $1.0 million and fifteen full-time equivalents in FY 2000 for the Collections Management Program. This increase will accelerate cataloging the backlog of uncataloged museum collections so that the work can be completed by 2017 rather than 2021. The collections will be cataloged into the Automated National Catalog System (ANCS+). The public will have increased access to collections data through the public search function of ANCS+. This aspect of the increase supports long-term goal Ib2.

The increase will also accelerate the preservation and protection of park museum collections so that the work of correcting deficiencies that the parks have identified on their Checklist for Museum Collections Preservation and Protection will be 95 percent complete by 2026 rather than 2046. Funds will be devoted to increasing access to the collections by providing research and reference work areas for the public, and storage space and equipment that facilitate access. Great Smoky Mountains National Park, in partnership with the Friends of Great Smoky Mountains National Park, will improve storage and facilitate access to the collections to meet the needs of an expanding science program. Fire and security deficiencies will be corrected and emergency operations plans will be written for all parks. For example, Lincoln Home National Historic Site will install a fire suppression system to protect the museum collections stored in the historic Carriage House and Barn. The increase will also support production of technical guidance on preservation and protection. This aspect of the increase supports long-term goal Ia6.

The proposed increase directly supports the Secretary's priorities to "reduce risks to our collections while increasing their access and use in supporting bureau mission activities" and "correct the Department's material weakness in museum property management." Further, it specifically supports the DOI strategic plan performance goals to "increase the number of collection items cataloged and accessible for use by at least 5 percent, increase opportunities for public access by 2 percent, and ensure that all units with museum property provide electronic access to the collections." This increase will allow parks to exceed NPS long-term goals Ia6 and Ib2 by accelerating the rate of cataloging and the correction of preservation and protection deficiencies. The revised ANCS+ system introduces the new automated deaccessioning procedures that parks will use to implement the 1996 amendment to the Museum Act of 1955 (16 USC 18f) expanding deaccessioning authorities. In many cases these activities will be completed under partnerships with preservation organizations. For example, the Museum Management Program has a cooperative agreement with the Northeast Document Conservation Center, Andover, Massachusetts, to provide technical services for museum and archival collections.

In summary, this increase will result in the following change in performance: (1) Accelerate cataloging of park museum collections so that the backlog will be eliminated in 2017 rather than 2021, (2) Increase public access to collections, and (3) Accelerate correction of preservation and protection deficiencies in park museum collections so that 95 percent of standards will be met by 2026 rather than 2046.

▪ ***America's Treasures Online (+$5,000,000; +4 FTE)***: The NPS is requesting an increase of $5.0 million and four full-time equivalents in FY 2000 for the America's Treasures Online program. This increase will initiate a systematic program to digitize images of NPS archival and museum collections and make them accessible to the public through thematic exhibits and an indexed database on the World Wide Web.

The NPS museum collections have over 78 million items, including 37.3 million archeological, ethnographic and historical objects; 1.1 million biological, geological, and paleontological specimens; and 39.8 million archival and manuscript items. These collections are in over 300 parks. The archival collections are estimated to include over 30 million manuscripts; 9 million photographs; 41,000 sound

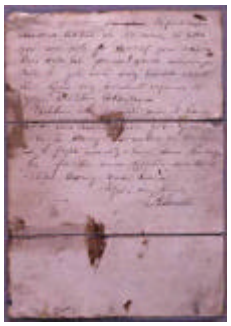
Fort Sumter Storm Flag present during the opening shots of the Civil War,
Fort Sumter, National H istoric Site

recordings; and 12,000 moving images (both videotapes and movies). Upon evaluation for values, usage, and risk factors, about 10 percent of the collections (7.8 million items) are expected to be of the highest value for education and general research.

NPS collections are grounded and enriched by being managed in their original context, that is, in the historic landscape (battlefield, canyon, garden, or cave), or in the historic structure (house, studio, shipyard, factory, or fort) where many of the most exciting events of American history and cultural experience have taken place. Examples of collections that would be made accessible through this initiative include:

Park Management/Resource Stewardship

- Thomas Edison's laboratory notebooks, personal papers, first sound recordings, belongings and equipment.
- Archeological collections documenting American history and prehistory and the actual structures and landscapes from which these objects came, such as Mesa Verde National Park and Chaco Culture National Historical Park.
- Military history materials including uniforms, weapons, ordnance, and soldier's diaries and letters from many American military actions, including those at Gettysburg National Military Park, Andersonville National Historic Site, *USS* Arizona Memorial, and Vietnam Veterans Memorial.
- The personal belongings, letters, works and diaries of many major American writers and poets, such as Eugene O'Neill, Henry Wadsworth Longfellow, and Carl Sandburg; presidents, such as Abraham Lincoln, Theodore Roosevelt, Herbert Hoover, Franklin D. Roosevelt, and John F. Kennedy; visionaries, such as Martin Luther King, Jr., and Frederick Douglass; reformers, such as Eleanor Roosevelt and Maggie Walker; and artists, such as Augustus Saint-Gaudens and Thomas Moran.



Abraham Lincoln letter to boyhood friend, 1860, Lincoln Boyhood NM

With $4.650 million of this increase, the Park Service would select and digitize images of an estimated 90,000 objects and archival documents from among the top 10 percent of NPS collections at 100 parks and mount the images and related data in thematic exhibits on the World Wide Web and in a web-accessible indexed database. These exhibits would tell the stories inherent in NPS collections in images and words. The NPS would capture high quality photographs of the objects and documents to ensure long-term preservation of the images; digitize the images; provide captions, an index and metadata (high level descriptive data) for the images; and incorporate the images into thematic web exhibits and an indexed database for the World Wide Web. The web exhibits will be part of the existing NPS website, ParkNet, and will be in its Links to the Past area focusing on cultural resources. The museum collections area of Links to the Past features thematic exhibits; "Treasures of the Nation," images of selected objects from park collections; a profile of each park's collection; and online publications and bibliographies. The museum collections area has logged over 8,000 user sessions per week. The images from America's Treasures Online will be immediately accessible to current users and will attract many additional users. The thematic exhibits and indexed images will link to individual park websites; other publicly available NPS databases, such as the Civil War Soldiers and Sailors Database; thematic web exhibits of collections from other Federal agencies, such as the Smithsonian Institution, National Archives and Records Administration, National Gallery, and the Library of Congress; education websites, such as Federal Resources for Educational Excellence managed by the Department of Education; as well as websites from non-Federal museums. Such linkages will give viewers, from school children to researchers, a powerful tool to explore America's collected heritage without regard to organizational and institutional boundaries.

The Collections Management Program, which currently has a program to catalog the backlog of uncataloged NPS collections, will support the America's Treasures Online program by giving priority to cataloging uncataloged items that are selected for digitization. The selected items will be electronically accessible in the Automated National Catalog System (ANCS+). All digitized images will be archived in ANCS+ and be available to the public not only on the World Wide Web, but also through the public search function of ANCS+. The members of the public who want more object-specific information than will be available on the web will be able to access additional data through ANCS+. Even with increased use of the collections, preservation of such items as historic photographs and documents will be enhanced by making preservation photographs and digital images available to users in place of the original. By reserving the original item for essential and specialized access, the condition of the original resource is preserved.

Cinnabar Mountain, Yellowstone River, Thomas Moran, 1871, Yellowstone NP

Park Management/Resource Stewardship

Most of the work would be contracted or completed under partnership agreements. For example, the NPS has a cooperative agreement with the Northeast Document Conservation Center, Andover, Massachusetts, to provide technical services for museum and archival collections and a partnership with Parks and History Association, Washington, D.C., to provide World Wide Web support. National Park Service staff would select the items to be digitized, manage the contracts, provide quality control, and design the web exhibits.

The Park Service currently has over 400 images of NPS collections on the World Wide Web. The proposed increase will make an estimated 225 times more images available on this medium. It is anticipated that such a dramatic increase in availability of collections will greatly expand the number of individuals who access this information. The increase directly supports the Secretary's priorities to reduce risks to our collections while increasing their access and use in supporting bureau mission activities, and correct the Department's material weakness in museum property management. Further, it specifically supports the DOI strategic plan performance goals to increase the number of collection items cataloged and accessible for use by at least five percent, increase opportunities for public access by two percent, and ensure that all units with museum property provide electronic access to the collections. This increase will allow parks to greatly exceed the NPS long-term (2002) goal that public use of museum collections is 10 percent over the 1997 baseline. At the rate of 90,000 images per year, over 80 years would be required to digitize 10 percent of the NPS collections. However, the first year involves startup costs and efficiency in processing is expected to increase, perhaps double, in successive years.

In FY 2000, the NPS will apply $300,000 of the increase to expand efforts already underway as part of *The NPS Civil War Soldiers and Sailors Partnership*. The National Park Service plans to present to the American public, in the year 2000, an innovative educational presentation on the Internet, which will offer over 50 million Americans with ancestors who fought in the Civil War a direct family link, through the Civil War Soldiers and Sailors System (CWSS), to this stirring period in American history, and to the places in the National Park Service where their ancestors fought. Using a list of 5.4 million soldier names, this multimedia presentation on the Internet will connect soldier names with regimental histories, battle histories, and to battlefields and specific monuments and historical markers in the parks where their regiments fought.

Starting with an index of names based on Union and Confederate records at the National Archives, the system will link names to regiments, regiments to battles, and feature copies of letters and diary entries from soldiers at those battles, link from regiments to photos of the hundreds of historic monuments at the parks, and to the historical markers in the parks describing each part of the battles.

A great deal has already been accomplished. In a private partnership with the Mormon Church, the Federation of Genealogical Societies, and the United Daughters of the Confederacy, volunteers in over 20 States have completed over 89 percent of 5.4 million soldier names. Digitizing brief histories of 5000 Union and Confederate regiments is over 70 percent completed. Library records on 7,000 letters and diary entries from Gettysburg and Fredericksburg have been cataloged in park personal computer software called ProCite. In 1996, the NPS put 235,000 names of

African American Union soldiers on the World Wide Web, linked to regimental and battle histories, but without multimedia imagery. The Park Service is currently inventorying the names of approximately 150,000 cemetery records at thirteen national cemeteries in the National Park System. (Gettysburg, Shiloh, Antietam, Stones River, and

Andersonville, are completed). In addition to the cemetery records, a Union prisoner list from Andersonville and 4000 Confederate prisoners at Fort McHenry have been entered.

The $300,000 in funding from the America's Treasures Online initiative will allow the NPS to accomplish the following:

- Cataloging of 24,000 letters and diary entries in the NPS Civil War libraries (the letters are typically copies of originals brought in by park visitors, often descendents, and are separate from letters in the NPS museum collections). The indexing will provide links to soldiers and regiment names, which can then link to monuments, battles, and cemetery records already in the Civil War Soldiers and Sailors database. Large collections of these types of documents are found in the libraries of Gettysburg, Shiloh, Fredericksburg and Spotsylvania County Battlefields National Military Parks, as well as other Civil War parks.

- Imaging copies of these documents for presentation on the World Wide Web.

- Producing digital photographs of all monuments (approximately 6,000) and historical markers (approximately 2,000) at NPS Civil War sites and referencing them to Union and Confederate regiments.

- Building a multimedia Internet presentation linking soldiers names, regimental and battle histories, and images of historical photos, documents, monuments, battlefield markers, and maps.

- Links will be built: to the National Archives to allow the public to order copies of the original records in the database; to the Library of Congress' online catalog for subjects/themes shared by NPS and the Library; and to the 60,000 Civil War photographs at the U.S. Army Military History Institute.

The purpose of the Civil War Soldiers and Sailors System is to allow millions of Americans to make a personal, family connection to the very places their ancestors fought and died, and see the parks and monuments that the Nation preserves in their memory. This program builds on private partnerships and volunteers, and will bring millions of new visitors to historic places.

Finally, in FY 2000, $50,000 of the increase would be used to develop two new *Teaching with Historic Places* Travel Itineraries, on the NPS website, including one for the Lewis and Clark Trail. The itineraries link national parks and National Register sites, to a specific theme by describing the sites, digitizing photographs, maps, and other information about the listed historic places, and making them widely accessible to the public. In addition to National Park System units such as Fort Clatsop, Jefferson National Expansion Memorial, Nez Perce, and Knife River Indian Villages, there are nine national historic landmarks, and numerous National Register sites associated with the Lewis and Clark Expedition and the Corps of Discovery. This educational tool will prove timely with the bicentennial of the expedition approaching in 2004.

In summary, this increase will expand educational opportunities for the American public and result in the following change in FY 2000 performance: (1) Increase the NPS collections publicly available on the World Wide Web by 225 times, (2) Increase the number of items with images accessible in ANCS+ by 90,000, (3) Increase the number of public users of the museum collections area on the NPS website (estimated to exceed 500,000 annually), (4) Increase web links among Federal museum collections and between Federal and non-Federal museum collections, (5) Exceed the long-term goal to increase public use of collections by 10 percent over 1997 baseline, (6) Add to existing National Park Service websites new images and documents, greatly expanding their accessibility and availability to an interested public.

▪ ***Cultural Resources Preservation Program (+$1,500,000)***: The NPS is proposing an increase of $1.5 million in FY 2000 for the Cultural Resources Preservation Program (CRPP). The Cultural Resources Preservation Program provides funds for parks to document, inventory and evaluate, preserve, and protect park cultural resources, such as historic and prehistoric structures and museum collections. These funds, combined with other sources such as cyclic maintenance and the Collections Management Program enable parks to meet the Service's long-term goals. This

increase will enable parks to exceed the long-term goals for inventory and preservation of cultural resources. It will assist central offices to develop and maintain automated inventory systems and databases. It will support the development of park-specific cultural resource condition monitoring programs to identify and check on resource preservation needs and threats to resources.

The List of Classified Structures is the NPS inventory of historic and prehistoric structures and as of the end of fiscal year 1998 included 23,167 structures in 340 parks; 43.1 percent are in good condition and 56.9 percent of these structures are in poor, fair, or unknown condition. Unfunded costs associated with treatments that have been approved by park planning documents for these structures total $1.1 billion, of which $178.1 million is for stabilization. The increase would provide funds for adding to the inventory and stabilizing structures, for example, the increase will enable preparation of a historic structure report for Bunker Hill Lodge at Boston National Historical Park (long-term goals Ia5 and Ib2C).

The increase will also facilitate the improvement of the storage and exhibit conditions for museum collections, the stabilization and treatment of museum objects and archival documents, and the cataloging of the backlog of uncataloged museum collections. The increase will accelerate the correction of deficiencies that parks have identified on their Checklist for Museum Collections Preservation and Protection. Parks need an estimated $92 million (excluding construction funds) to correct 95 percent of the deficiencies. For example, Badlands National Park will upgrade its collections storage to protect its growing collections and provide access for researchers. The increase will also cover assessing condition of and treating the most fragile, important, and heavily used museum objects. Based on extrapolated data from 118 park Resource Management Plans and the 1997 survey of cellulose nitrate film in NPS collections, conservation survey and treatment needs are estimated at $47.5 million. The increase, additionally, will support conservation treatment of historic rugs exhibited at Home of Franklin D. Roosevelt National Historic Site. In addition, an estimated $61 million is needed to complete the cataloging of uncataloged collections. The increase will accelerate the reduction of this backlog. This part of the request addresses long-term goals Ia6 and Ib2D.

The recently initiated Cultural Landscapes Inventory will be an evaluated inventory of all landscapes in NPS care that have historical significance. This increase will accelerate completion of this inventory, which is estimated to cost $30 million and other research, for example, a cultural landscape report for Mount Locust at Natchez Trace Parkway will be prepared (long-term goals Ia7 and Ib2B).

In addition, the increase will improve the conditions of archeological sites and the inventory of those sites. The NPS has records of only 25,000 of the hundreds of thousands of archeological sites for which it is responsible. Condition information is available for only 5,000 of these recorded sites and much of this information is outdated. Funds will provide for site assessments, and actions to reduce or eliminate threats from erosion, vandalism, looting, weathering, and some kinds of otherwise legitimate visitor activities. Funds will also accelerate the recording of archeological sites in the national archeological inventory system. For example, Hopewell Culture National Historical Park in Ohio will prepare inventories of the great earthen archeological sites. This part of the request addresses long-term goals Ia8 and Ib2A.

The identification, evaluation, and documentation of natural and cultural resources, such as mountain tops, groves of trees, water springs, and other kinds of places that are of continuing importance to contemporary groups with traditional ties to lands now within park boundaries, is part of the ethnographic inventory to be initiated in 1998. This increase will support survey and assessment of resources for inclusion on this inventory (long-term goal Ib2E).
This increase request supports the Secretary's primary theme of "Resource Restoration and Protection: Our Legacy to Future Generations." It also supports the Secretary's budget priorities to "reduce risks to our collections while increasing their access and use in supporting bureau mission activities" and "correct the Department's material weakness in museum property management." In many cases these activities will be completed under partnerships with preservation organizations. For example, the Museum Management Program has a cooperative agreement with the Northeast Document Conservation Center, Andover, Massachusetts, to provide technical services for museum and archival collections, including collection condition surveys.

Park Management/Resource Stewardship

The change in performance cannot be specifically indicated by resource type because project lists and priorities are established by the Regions and the dollars and the nature of projects for each resource type may vary from year to year. In general, this increase will result in the following change in performance: (1) Accelerate the inventory and stabilization of historic and prehistoric structures, (2) Accelerate the cataloging of the backlog of uncataloged museum collections, the improvement of storage and exhibit conditions for museum collections, and the stabilization and treatment of museum objects and archival documents, (3) Accelerate completion of the Cultural Landscapes Inventory, (4) Improve the conditions of archeological sites and the inventory of those sites, and (5) Survey and assess resources for the ethnographic inventory initiated in 1998. Within the CRPP program, the NPS will obtain cost-share arrangements for at least $2.0 million in FY 2000, as part of the Administration's Partners for Parks initiative to leverage non-Federal resources for park purposes.

This increase would bring the total for the CRPP to $15.041 million.

▪ ***Vanishing Treasures (+$994,000; +13 FTE)***: The National Park Service is proposing an increase of $994,000 million and thirteen full-time equivalents in FY 2000 for the Vanishing Treasures initiative. The goal of the program is to overcome a backlog of essential preservation work and bring structures to a condition in which they can be preserved by routine maintenance activities. The ancient and historic ruins in southwestern and western parks are deteriorating rapidly; some are in danger of total collapse. At Chaco Culture National Historical Park, Mesa Verde National Park, Casa Grande Ruins National Monument, and many other parks, the extent of deterioration varies, and can be severe. For example, Mesa Verde has recorded over 2000 archeological ruins, but is able to systematically monitor only about 200 and to provide some measure of stabilization for only about 50. The proposed increase would enable immediate emergency actions (including documentation), planning and management of projects, development and training of a skilled workforce, and provision of appropriate expertise to make the program successful. Projects will be carried out by parks, centers, or support offices, depending upon the nature of each project.

The increase would be distributed as follows:

- Regional office – managed emergency projects (+ $197,000)

- Project Management and Oversight (+103,000)

- Park Base Increases for skilled Maintenance Staff (+694,000)

An additional $197,000 is requested to conduct preservation projects on significant prehistoric and historic ruins. The increase will bring the amount available for emergency projects to $821,000. This would be sufficient to address approximately 10 to 12 preservation projects.

A modest increase in project management and oversight funding is also requested. A $2,000 increase is requested, bringing the total for this category to $50,000. Another $101,000 is requested for an engineer/conservator position which will ultimately be park-based. At the time this document went to print, the park duty station for this position had not been determined. The funding has been included with the "regionally" requested money until such time as it is determined where it is most advantageous to locate this position.

An additional $694,000 and 12 FTE are requested for park base increases. Eight additional skilled craft specialists and four additional experts in conservation, archeology or engineering are proposed for FY 2000. All of these positions and funding are reflected in the budget as increases to the bases of nine specific parks. The parks are as follows:

Mesa Verde National Park
El Malpais National Monument
Tumacacori National Historical Park
Salines Pueblo Missions National Monument
Grand Canyon National Park
Fort Davis National Historical Site

Park Management/Resource Stewardship

San Antonio Missions National Historical Park
Wupatki National Monument (also serving Sunset Crater National Monument and Walnut Canyon National Monument
Navajo National Monument

Further details concerning these increases may be found in the *Analysis of Special Park Increases* section beginning on page NPS – 156.